DELOREAN WORLD

Published Quarterly by the DeLorean Owners Association

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DeLorean
GOODYEAR

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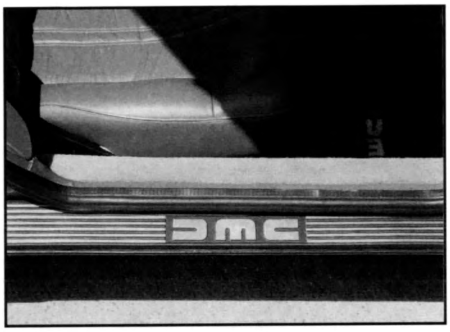

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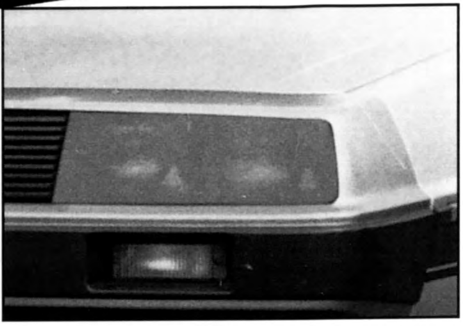

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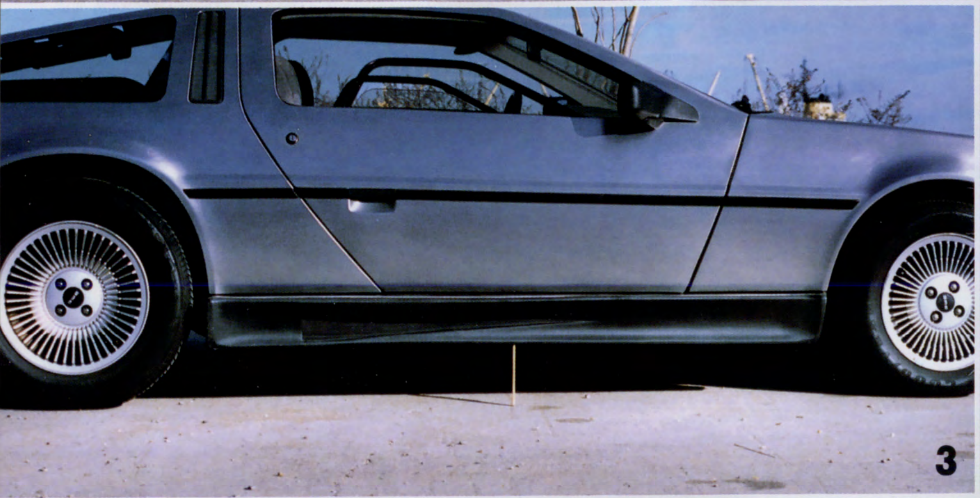

GFF 807
DeLorean
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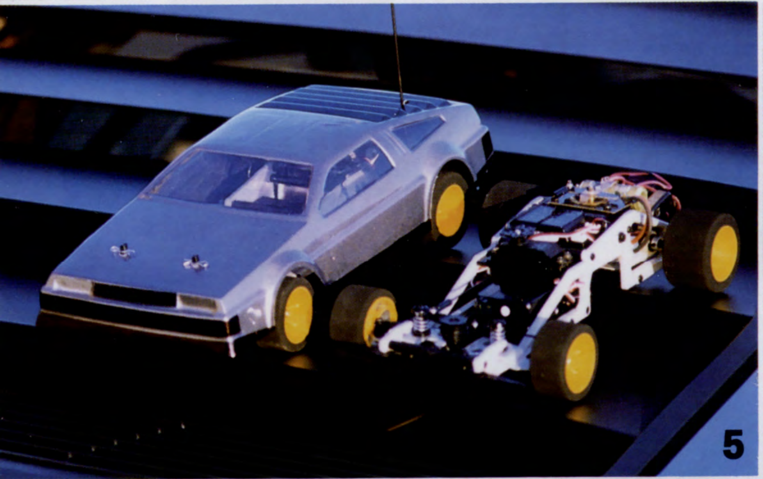

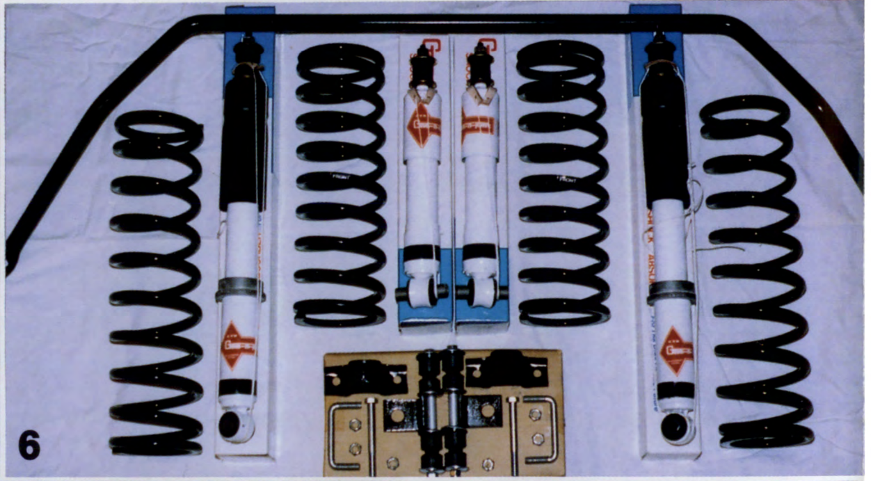

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DeLorean
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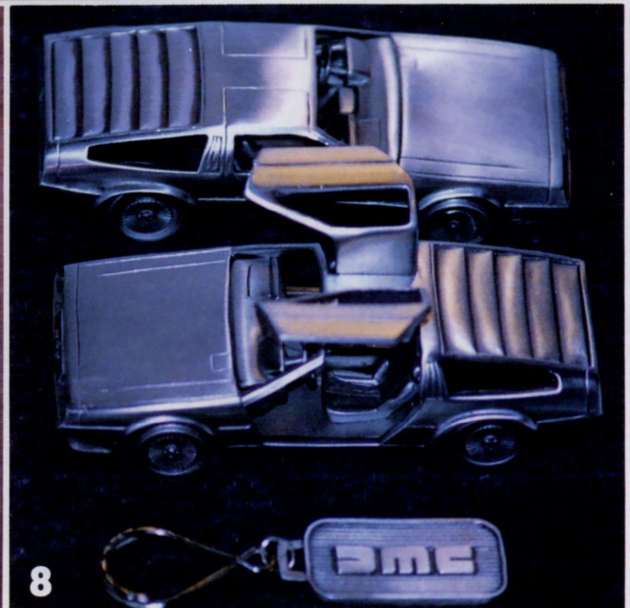

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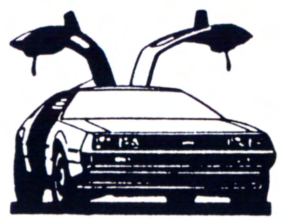

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___	HEADLIGHT BLACKOUT COVERS	75.50	
___	TAIL LIGHT & LICENSE PLATE BLACKOUTS	145.00	
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___	PEWTER "DMC" TIE TAC	7.00	
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___	DUAL EXHAUST HEADERS	$400.00	
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ASK FOR FRED LOCKETT - *The DeLorean Pilot*

EDITOR'S NOTE

BY KAY MYHRE

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watches.
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counting...

JAN HARDE

"Cars and movies are made for each other," is the comment recently heard on the news. Perhaps there is some truth to this. How many of you remember the computerized wonder car—the Trans Am named "Kit," or remember American Graffiti with the '58 Chevy...or the car chase in "Bullit" with Steve McQueen and the 60's muscle cars? Do you remember the chase scene in "The French Connection" with the dynamic sound track of shifting gears...or James Bond's classic fantasy cars? Now we have Dr. Emmett Brown's "Star Car" of "Back to the Future," the DeLorean.

There seems to be an international fascination with the futuristic design of the DeLorean...and there is universal fascination with the concept of time travel. The potential marvels of science propel us toward a stimulating adventure into the realm of possibility. Maybe it is possible to travel into the future...into the past...back to the present...back to the future?

The Theory of Relativity, $E=mc^2$, (energy equals mass times the speed of light squared), (first written in the early 1900's), and the original groundwork for quantum theory, are still two of the most valuable of Einstein's conceptual contributions to science. Perhaps "Doc" is the benevolent scientist in Back to the Future as Einstein was in reality.

The mayhem of Michael J. Fox and Christopher Lloyd criss-crossing back and forth across time, into the future, back to the past, back to the present, and finally—in a preview of BTTF, Part III—back to a more distant past, makes for a stimulating, thought-provoking, conceptual study. One wonders how they keep track of all the details! In reference to Part III, writer Marc Shapiro (Starlog) quotes Zemeckis, "The third film is so epic in scale and so full of classic, romantic, and American images that the cast and crew have been totally re-energized."

The phenomenal concepts of physics may be the basis for much speculation and imagination intellectually presented in some modern-day movies. Going beyond character portrayals, Robert Zemeckis, director, and Bob Gale, author, exhibit tremendous talent in translating some very difficult concepts and theories by illustrating those concepts in lay terms and with dynamic special effects. The selection of the DeLorean automobile to portray the futuristic vehicle of time-space travel only emphasizes David Knudson's statement, "DeLoreans still look more futuristic than anything on the road today."

Kay Myhre
Editor

DELOREAN OWNERS ASSOCIATION
Service Facilities Directory

Here Comes The

SERVICE DIRECTORY

For over a year we have been collecting names from members across the country of service facilities in their local areas. Each name was personally called and verified. The directory contains about 200 facilities and will be mailed to every member free of charge.

DELOREAN WORLD

Volume 7, Number 1

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CALENDAR
DeLorean Expo '91
September 26-29, 1991
Las Vegas, Nevada

On the Cover:
See Page 19
Back to the Future Clone
Car and Photo Courtesy of
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Pace's Body Shop,
Kansas City, Missouri

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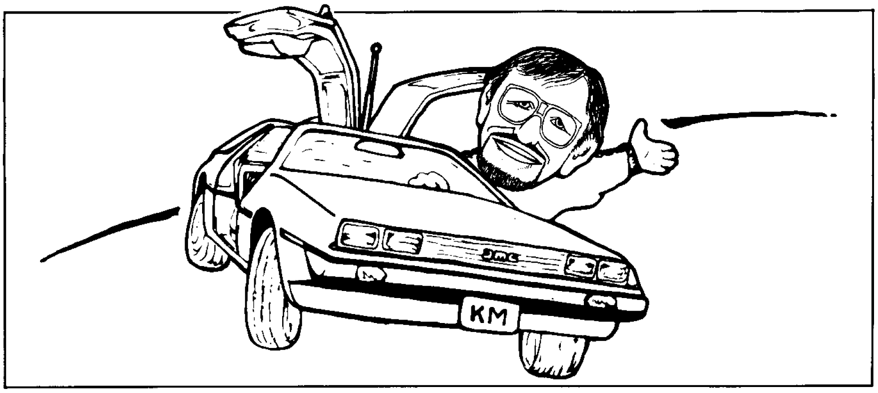
PRESIDENT'S MESSAGE

BY KJELL MYHRE



In the Business section of the Los Angeles Times, the last Tuesday in February, the following headline appeared: "The DeLorean: A Comeback for the Future?" by Patrice Apodaka, Times Staff Writer. Two pages of coverage tend to mitigate comments reported in my previous message. This independent coverage recognized DeLorean One in Canoga Park, California "as one of the biggest DeLorean parts and repair outfits in the country," and co-owner Ed Bernstein "contends the car's image is on the mend, thanks in part to the popular 'Back to the Future' movies, which featured DeLoreans souped up into time-traveling vehicles," the theme of this issue of DeLorean World with Joe Pace's own edition of the "Back from the Future" car on the cover. The projection is "that DeLoreans will become prized by investment-minded car buffs who—keep their cars in shape."

For better or worse, nothing stays the same. Nearing the 10th year anniversary of the initial offering of the DeLorean, it is now assured recognition as an "exotic & collector car," and speculation in its value will increase in the decade of the 90's and beyond. You will see more about the DeLorean in the automotive press focusing more on the distinctive and the exotic.

Recently a member sent me a note asking if the Association could provide more technical information. Like many of our members, he lives in a small town, miles from the closest service center, so he has to do a lot of his own work. Through the years, we have been keenly aware of this type of situation. In an effort to support these owners, we have emphasized the development of local chapters of the Association, published technical articles from qualified technicians, conducted technical seminars, and offered back issues of the DeLorean World magazine with a Technical Directory; this, in addition to making our Technical Director available. Although DeLorean World has covered virtually everything that is reasonable for a nonprofessional mechanic to do, we intend to begin revising and reviewing some of the earlier technical articles in upcoming issues.

At our EXPO '89 Tech Seminar last year, there were also requests for more technical information. I receive promises for technical articles from quite a few members, but, even after several follow-up phone calls, almost none of these articles ever come to fruition. Keeping in mind that a volunteer organization is only as good as the members who volunteer to help, I ask your assistance in disseminating more technical information.

Here's how you can help. If you don't have a chapter within reasonable distance, you can organize a group of owners and work together. Discussing your cars is the best way to learn about yours, and your group can also approach and support local service centers. Many existing foreign car service centers will welcome the business once they know there are several owners in the area, and that parts are readily available on a next-day basis. On the other hand, if there is a chapter in your area, attend their functions. You will learn a lot, become knowledgeable, and in turn, you will be able to help others. If you or your friends have some technical input, send it to us and help feed our tech-starved members.

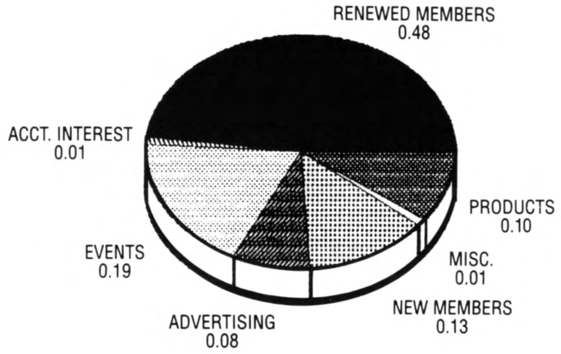
As the first member of the Association, Barbara Lipana has served the Association in various capacities, last year as Chapter Manager. A new career opportunity has presented itself to her wherein her present level of activity in the Association would be compromised, and she has chosen to step down from her present level of activity in the Association to focus on her new endeavor. Thank you, Barbara, for the many tasks performed and our best wishes go with you.

The now updated DeLorean Owners Association Service Facilities Directory is scheduled to be in your hands as you receive this issue of the DeLorean World. Millie Bernstein and her volunteer helpers have made literally hundreds of phone calls all over North America to validate the information therein as of press time. Now it is up to you to update this information over the next year by informing us of any errors, additions, deletions and changes, and you will help us improve the next edition. Again, thank you all who helped.

In this issue there is an ad by TopWheels, an Exotic Sports & Classic Cars magazine. In the March, 1990 issue, in an editorial by Richard Hollander, he comments about the "final decade of the twentieth century" that "automobiles have been around for only 104 years yet drastically shaped world society in those decades." In contemplating the automobile's future, references are made about "innovative options such as BMW's fog-penetrating radar system with head-up windshield display and the European traffic solution system, Prometheus." He comments that, "the car's future does indeed look bright" and "that now is the true 'Golden Age' of the motor car."

TREASURER'S REPORT

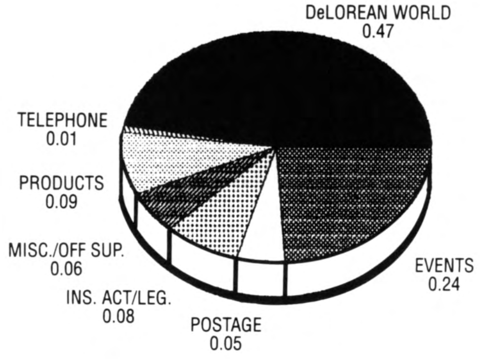
DeLorean Owners Association 1989 Income



1989 Income

Events	$23,133.00	0.19%
Ads	9,539.00	0.08%
Renewed Members	57,732.00	0.48%
New Members	15,930.00	0.13%
Products	13,130.00	0.10%
Account Interest	964.00	0.01%
Miscellaneous	1,001.00	0.01%
TOTALS	$121,429.00	100.00%

DeLorean Owners Association 1989 Expense



1989 Expenses

Postage	$ 5,964.00	0.05%
Telephone	1,079.00	0.01%
Printing (Delor. World)	55,192.00	0.47%
Events	28,439.00	0.24%
Products	11,243.00	0.09%
Office Supply / Misc.	7,110.00	0.06%
Insurance / Acct. / Legal	9,480.00	0.08%
TOTALS	$118,507.00	100.00%

Technical Correspondence may be directed to

Jon Spurlin
Technical Director
(818) 993-1433

8900 Oak Park Ave.
Northridge, CA 91325

Membership Communication may be directed to
David Knudson
Member
Communication Director
1149 Arcadia Avenue #3
Arcadia, CA 91007

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(4x5 Transparencies for the cover)
(Transparencies, standard color or black and white for the interior)
Send to:
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Kay Myhre
P.O. Box 1116
Sun Valley, CA 91353-1116

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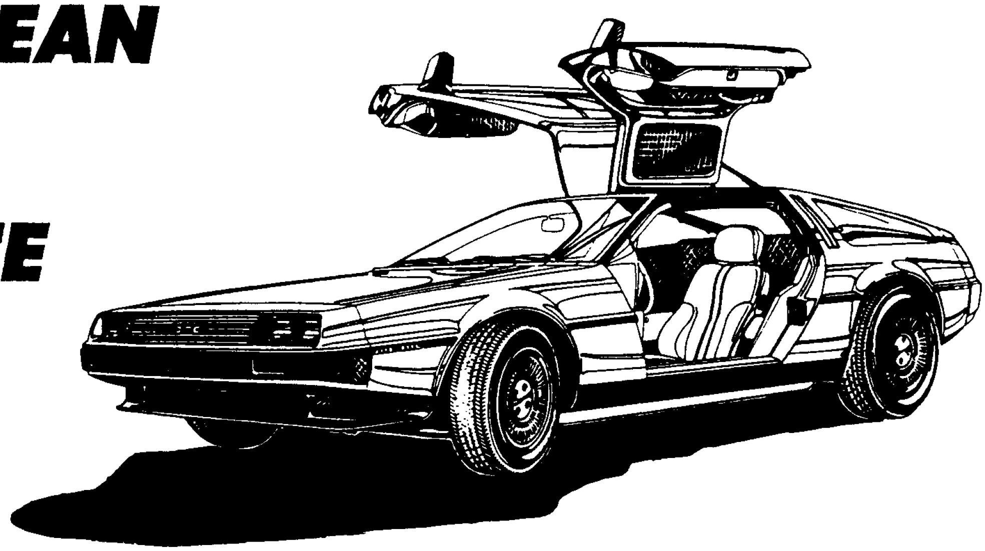

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All Cars Are Secured Inside at Night

Seasons Greetings
Chapter 36

ELEANOR ROGERS

You can have your cake and your DeLorean too.

Area Regional Chapter 36

BY ELEANOR ROGERS

The National Cape Cod convention, EXPO '89 was a huge success. Looking forward to 1990, Rob Grady graciously volunteered his shop for a tech seminar on general maintenance and we viewed videos on EXPO '89 and on Chapter events. We are meeting with other chapters for a weekend in April and the Sports Car Club of America has again invited us to display at their annual meet in May.

This artistic cake was created for our Holiday Party by West Isly's Bake Shop (Bay Shore, NY). We were so impressed with Lisa's talents that we saved the DeLorean logo to freeze for an anniversary meeting. The photo was enlarged and presented to the bake shop.

Area Regional Chapter Calendar of Events for 1990

Past – Present – Future

If you've missed an event in your area, make sure you contact your local Area Regional Chapter Coordinator regarding upcoming activities and to get on their mailing list.

AREA REGIONAL CHAPTER 22

Massachusetts, Maine, New Hampshire
Lloyd Teran, Coordinator (617) 653-1720

Apr. 21-22	DeLorean Car Care Clinic by Rob Grady – Northboro, MA
May 18-20	Eastern Regional Run One – Fernwood Resort, Bushkill, PA (see ad, pg. 13)
June 17	Car Festival in Portsmouth, Rhode Island

AREA REGIONAL CHAPTER 36

Long Island, New York
Eleanor Rogers ,Coordinator (515) 491-1248

Jan. 9	Election Meeting
Feb. 3	Technical Seminar
Feb. 13	Board Meeting - Eleanor Rogers'
Apr. 27-29	Weekend -Griartuck Inn, Catskill, N.Y.
May 20	The Sport Car Club of America - Planting Fields Arboretum in Oyster Bay.

AREA REGIONAL CHAPTER 17

Central California
Dean Kimball, Coordinator (415) 944-4982

January –	Dinner Meeting
March	St. Patrick's Day Parade and Lunch, Dublin, CA.
June 8-10–	Hyatt Lake Tahoe Event, Incline Village, NV. (see ad, page 12)
July –	Concours d'Elegance, Lafayette, CA.

AREA REGIONAL CHAPTER 9

Southeast Texas (713) 497-8195
Harold McElraft, Coordinator or (713) 626-1919

Mar. 3	Parade Prep. - Dean's Residence (Mar. 10 Rain Date)
Mar. 17	St. Patrick's Day Parade Downtown
Apr. 14	Galveston Easter Parade
May 1	Regular Meeting, DeLorean One
May 20	Picnic, Brazos Bend State Park
June	Back To The Future III
July 10	Regular Meeting, DeLorean One
Oct. 12-14	The Main Event – Southern Jubilee (see ad, pg. 24)

AREA REGIONAL CHAPTER 5

Georgia
Thomas Long, Coordinator (404) 449-1968

March 3	Tour North Georgia; Dinner, Dillard House
April 7	Azalea Tour Buckhead Region of Atlanta; Dinner, Buckhead Restaurant
May 12	Picnic, Heninger's Home, Gainesville, GA
June 16-17	Overnight Trip Through the North Carolina Mountains & Villages
July 28	Scenic Trip on The New Georgia Railroad, Stone Mountain Dinner Train
Aug. 18	Tech Session - Joe LoRé
Sept. 15	Callaway Gardens - Pine Mountain, GA
Oct. 19-21	Myrtle Beach - Brookwood Garden of Sculptures, South Carolina
Nov. 17	Surprise Package
Dec. 14	Dinner Dance & Christmas Party at the Atlanta Athletic Club

AREA REGIONAL CHAPTER 35

Stoney Point, New York (914) 928-2321 Ext. 239
Gail Geraldi, Coordinator or (914) 429-0121

Spring, 1990	Tech Seminar (dates to be announced)
	Road Rallye
	Polo Match
May 18-20	Regional Event (see ad, page 13)
	Picnic
Labor Day	Lime Rock Fall Festival

AREA REGIONAL CHAPTER 12

Southern California
Dev Michael, Coordinator (805) 529-0953

Nov. 29 - Dec. 1	Holiday Weekend Event, Holiday Inn Resort and Conference Center, Solvang/Buellton, CA

AREA REGIONAL CHAPTER 23

Ohio
Guy Avellon, Coordinator (216) 734-6664

June 22-24	Vintage Sports Car Race at Mid-Ohio. Great time to see Cobras, McClarens, Shadows, Busbys, etc.

DON'T MISS THE HIGH SIERRA GETAWAY!

Here comes the Second Annual High Sierra Getaway, June 8, 9 and 10!

Restaged by Chapter 17 after its huge success last year, this one promises to be even bigger and better.

Festivities will center again around the exciting lakefront Hyatt Lake Tahoe Resort & Casino.

Lakefront receptions, a hayride and hearty breakfast at the mountaintop Bonanza ranch of television fame, sumptuous buffets, a tech seminar, a scenic Poker Rallye around the lake, casino gaming, tennis you name it.

Mark your calendar now!

Chapter 17
For further information contact:
Dean Kimball
P.O. Box 5475
Walnut Creek, CA 94596
(415) 944-4982

DELOREAN OWNERS ASSOCIATION

Area Regional Chapter 9

BY HAROLD McELRAFT

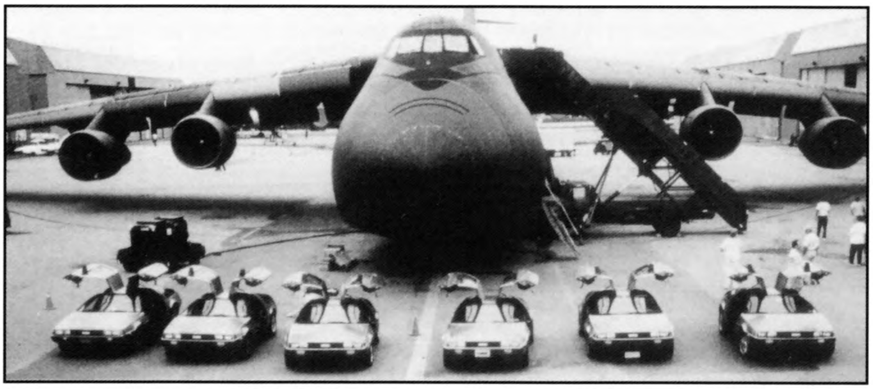
The membership kicked off the new decade with an exciting calendar of events including the most popular Traditional St. Patrick's Day Parade, as well as the Galveston Easter Parade. This summer we'll be going to see "Back to the Future III."

Chapter 9 Main Event, Oct. 12-14, is our first "regional" event. (See full page ad.) The National DeLorean Owners Association has encouraged Chapters to have regional events. They will support these events and attend as well. Mary Ruth & Joe White and Stephen & Elaine Wynne have secured the grounds and facilities of Lovett Hall at Rice University and of the Warwick-Wyndham Hotel. This is the site of the 1990 Economic Summit Conference. Imagine tech seminars, product fair and a scenic rallye of Houston plus dancing the night away in the Ballroom of the Warwick, then being pampered in style, overnight, at this hotel's four-star facilities, in addition to a Concours on the lawn at Rice University!

Area Regional Chapter 17

BY DEAN KIMBALL

In Northern CA, we had the opportunity to privately tour the Behring Museum, a $100 million car collection with no ropes, glass cases, or barriers between you and the cars. And, as an added treat, they put on display for us only, a DeLorean Pre-Production, normally not in the museum but part of their collection.



ALDO BUONO

Birds of a feather under the wings of a big bird.

Area Regional Chapter 2

BY ALDO BUONO

General Fred Vetter and his wife, Phyllis, hosted a personal tour of the C5-B (the largest U.S. cargo aircraft) at Dover Air Force Base. Fred arranged to have members drive their cars onto the tarmac next to the C5-B on show for open house. The DeLoreans attracted as much attention from visitors as the aircraft.

In November, a local radio station in Philadelphia was promoting the premiere of Back to the Future II. Eight of our DeLoreans were exhibited at a center city theater for the premiere. A cold front accompanied by high winds, rain, and flying debris greeted us just as the movie let out. But the cold winter months of the first quarter is not hibernation time for Chapter 2. We plan an event for each month.

Area Regional Chapter 5

BY TOM LONG

Many special DMC caravan trips (and technical sessions) are planned for 1990, as last year's excursions were truly memorable and enjoyable to all. We will again be touring and visiting other Chapters. The same trait of individuality that led you to buy your car in the first place makes for very interesting and enjoyable social relationships.

In October, we attended our first National Convention, EXPO '89, and indeed it was worth the effort. There were over 65 DMC's on hand and it was a novel experience to meet and share stories with so many other owners. I have yet to meet a boring DeLorean owner.

Chapter 12's Back to the Future Palm Springs weekend.

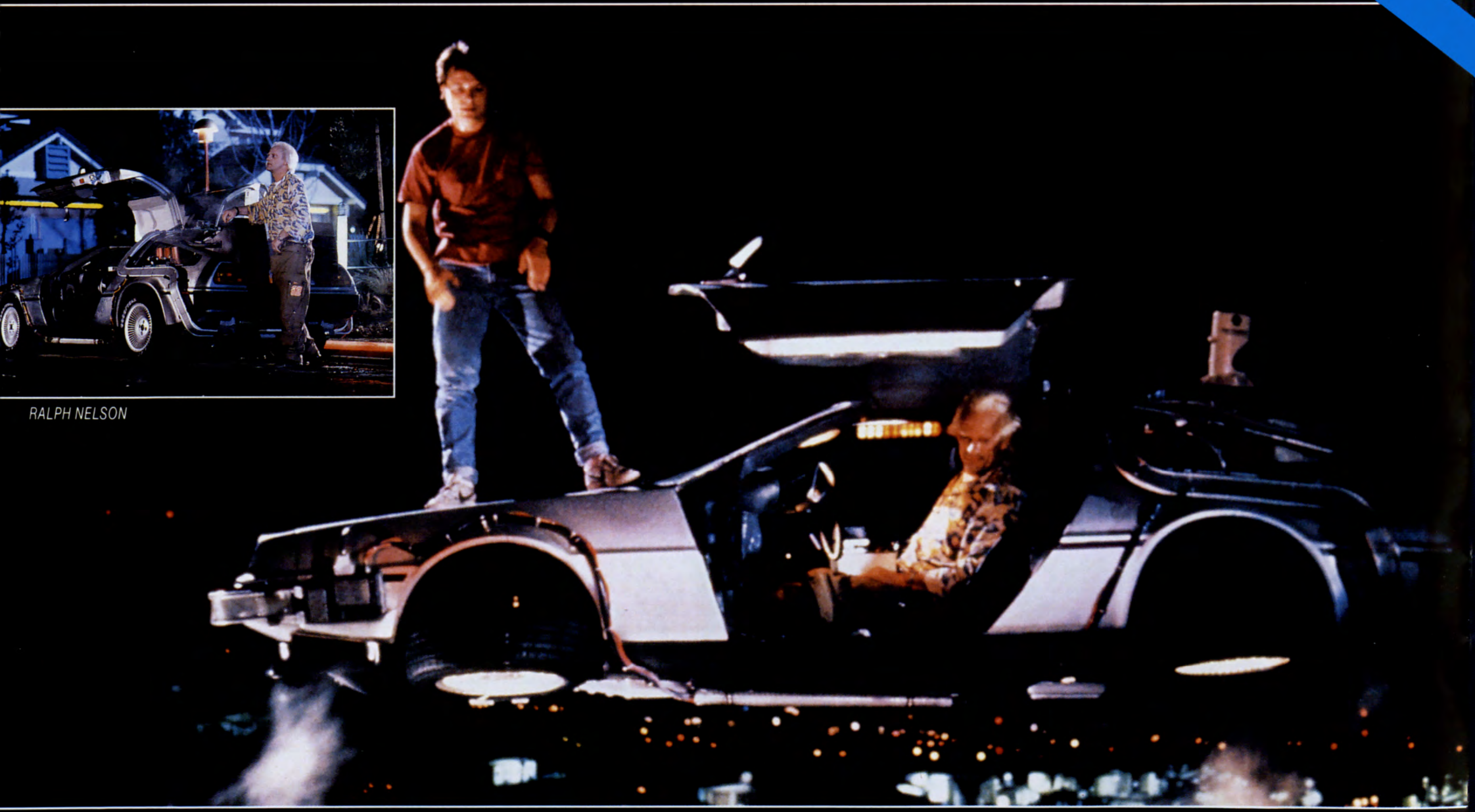
ROBIN McNEILL

FIRST ANNUAL EASTERN REGIONAL RUN

May 18-20,1990
Fernwood Resort & Country Club
Bushkill, Pennsylvania
For Information, Contact:
Michael Barnes
ERR ONE Coordinator
Box 110
Clementon, NJ 08021
609-627-4357
(early evenings, please)

BACK TO THE FUTURE

RALPH NELSON



RALPH NELSON

In November, we toured Universal Studios including the back lot sets of the Back to the Future II movie. It was exciting to see as the movie was not yet released. Hoping to obtain as many great photos as possible, we went to Tours Information for a collection of souvenir photos. Several phone calls and three days later, we were invited to Amblin to select some pictures from 356 publicity shots available. It was like a private sneak preview and it was tough to decide which ones to select. Here are the best of the bunch.
Bob and Lynda Buono, NY

RALPH NELSON
Ralph Nelson's photos are
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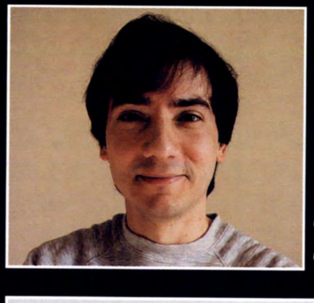
DR. EMMETT BROWN'S FLUX CAPACITOR

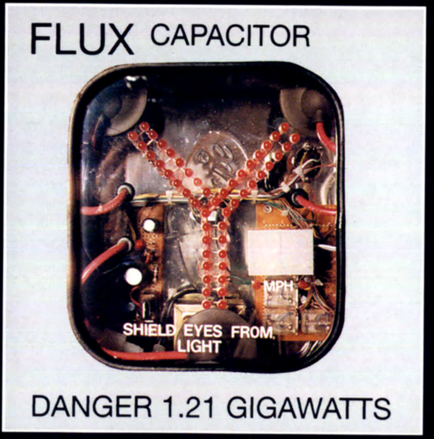
BY BOB BUONO

About three years ago, I entered our DMC in the Nassau Colliseum Custom Car Show. Needless to say, the concept for the display was time travel. My wife, Lynda, insisted upon building a FLUX CAPACITOR. I told her, "You're out of your mind. Do you have any idea how much time and sweat it would take to build one?" ...Well, she's very persuasive...and I must have been nuts. Fourteen weeks later, there it was. It was an exact copy of the original and much more. As you would expect, it WILL transport you through time, but the unexpected is the Digital electronics consisting of eleven integrated circuits. This propels twenty-three sequenced light shows. Those of you who saw it operating at the Cape Cod Convention will probably agree, "It's something you've got to see." And, of course, it works in the car so you don't miss any future appointments.

Oh yes, how did we make out at the car show? Out of 153 displays, many of which were professional dealer displays, we pulled Third Place Best Display. After extensive improvements and modifications, we entered it as part of our Chapter 35 centerpiece at the National Convention and lost to Chapter 36 who made a lighthouse out of DeLorean parts. Congratulations, Chapter 36.



Bob Buono, flux capacitor designer.



BOB BUONO

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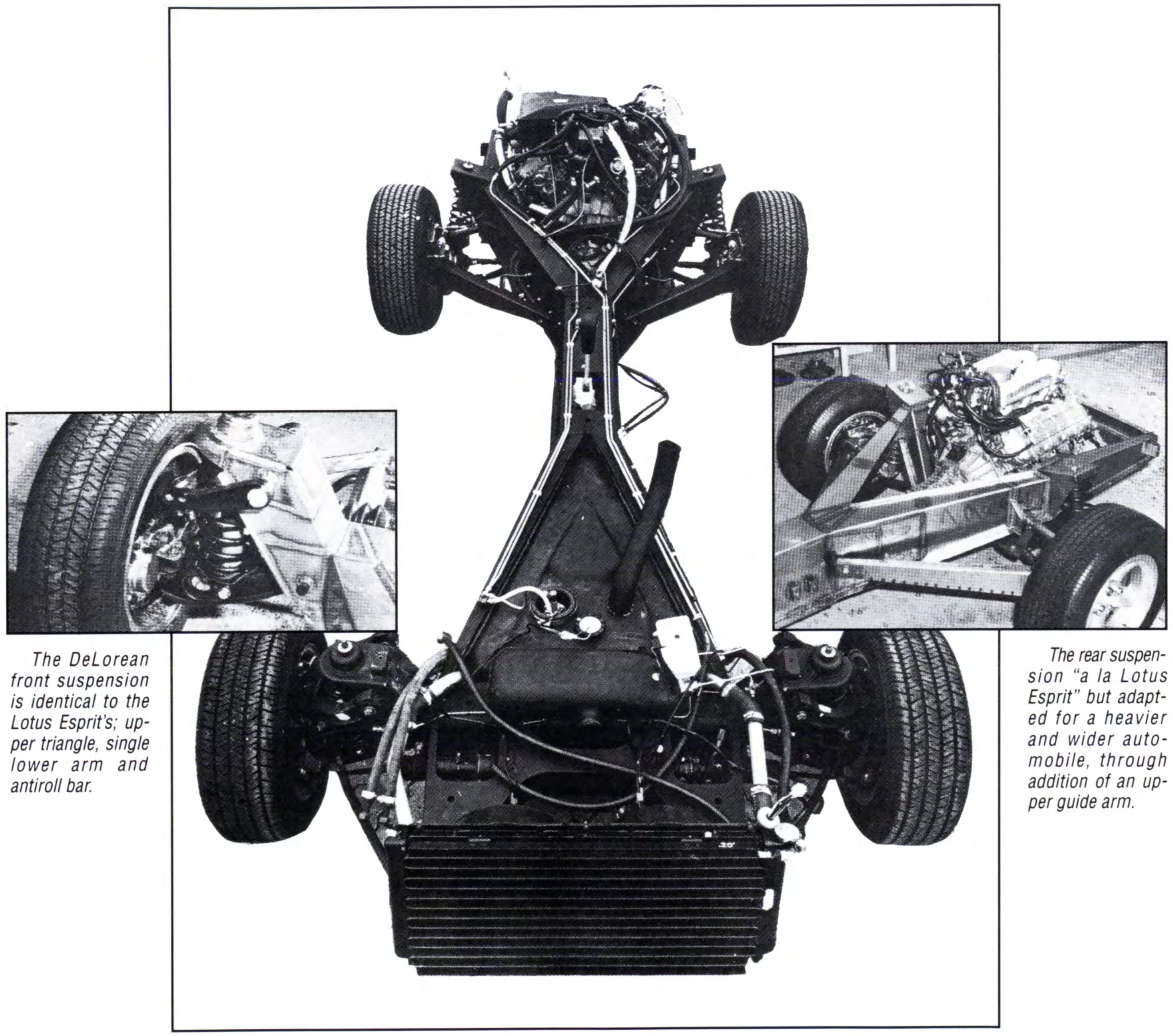
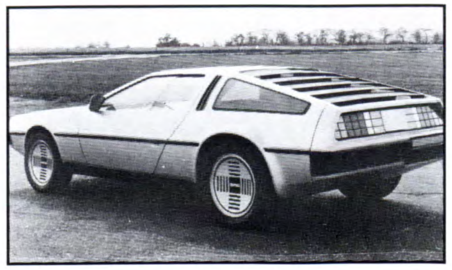


The DeLorean front suspension is identical to the Lotus Esprit's; upper triangle, single lower arm and antiroll bar.

The rear suspension "a la Lotus Esprit" but adapted for a heavier and wider automobile, through addition of an upper guide arm.

Although there were no great external differences between the second DMC prototype and the production DeLorean, underneath they were totally different. Both had been constructed beginning from an interior plastic cell. But while the original DMC had two false-chassis: (front and rear), Lotus had eliminated these in order to replace them with a cell-independent boxbeam chassis, an idea dear to Colin Chapman. By way of anecdote,it was while widening a boxbeam chassis just enough to fit in a driver that Chapman invented the Formula One monocoque.



The original wooden mock-up, retouched on one side by Giugiaro for the "minor face-lift" ordered by John Z. DeLorean.

THE DeLOREAN SAGA

Reprinted courtesy of TopWheels Exotic Sports & Classic Cars magazine, September, 1989.

Ah, the DeLorean Motor Company (DMC)—certainly among the most ephemeral of automobile legends. And as much the history of an extraordinary sports car as that of a decidedly uncommon man: John Zacchary DeLorean. In past issues of TOPWHEELS, we discovered the automobiles's first operational prototypes and watched the evolution of design specifications as a function of production considerations. Now we are going to see the overwhelming influence on the DeLorean resulting from the signing of the contract with Lotus.

While continuing its production of racing vehicles, Lotus also began to manufacture sports cars, the first being the Lotus 7 in 1957. The 7 was, in fact, nothing other than a race car with fenders. This was followed by the gracious Elite between 1959 and 1963: the first polyester-body Lotus. The fabulous Elan was born in 1962, the first production Lotus with a boxbeam chassis, a concept which was going to be seen again—later—on the DeLorean. The first mid-engined Lotus, the Europa, didn't make its debut until 1967.

From 1974 on, Lotus decided to turn its back on the small sports car market in order to concentrate on those interested in luxury automobiles by bringing out the new Lotus Elite. This was a large, front-engined, four-seater with a 2.2-liter, 16-valve motor with Lotus written all over it. Another version of this automobile, the Eclat, was brought out in 1975, its birth eclipsed by the appearance of the extraordinary Esprit in the same year.

Like the DeLorean, the Esprit had been designed by the Italian master, Giorgetto Giugiaro, and both automobiles are typical of the era's "wedge" body period.

Lotus Total Technology certainly had much to offer DeLorean. One example of their talents might be the development work that went into the Talbot Sunbeam, originally a model abandoned by Peugeot when the latter took over control of Chrysler Europe. Lotus, having a large stock of its 2.2-liter, 16-valve, 140-horsepower engines, the same one originally installed in the defunct Jensen-Healey, on hand. By marrying the Sunbeam and this engine, birth was given to the celebrated Talbot-Lotus, which took the World Championship Rally crown in 1981!

The engineer Colin Spooner (Lotus) was responsible for perfecting the DMC-12's chassis and suspension. He explains his ideas to (left to right) John Z. DeLorean, Eugene Cafiero, Colin Chapman and Mike Kimberley.

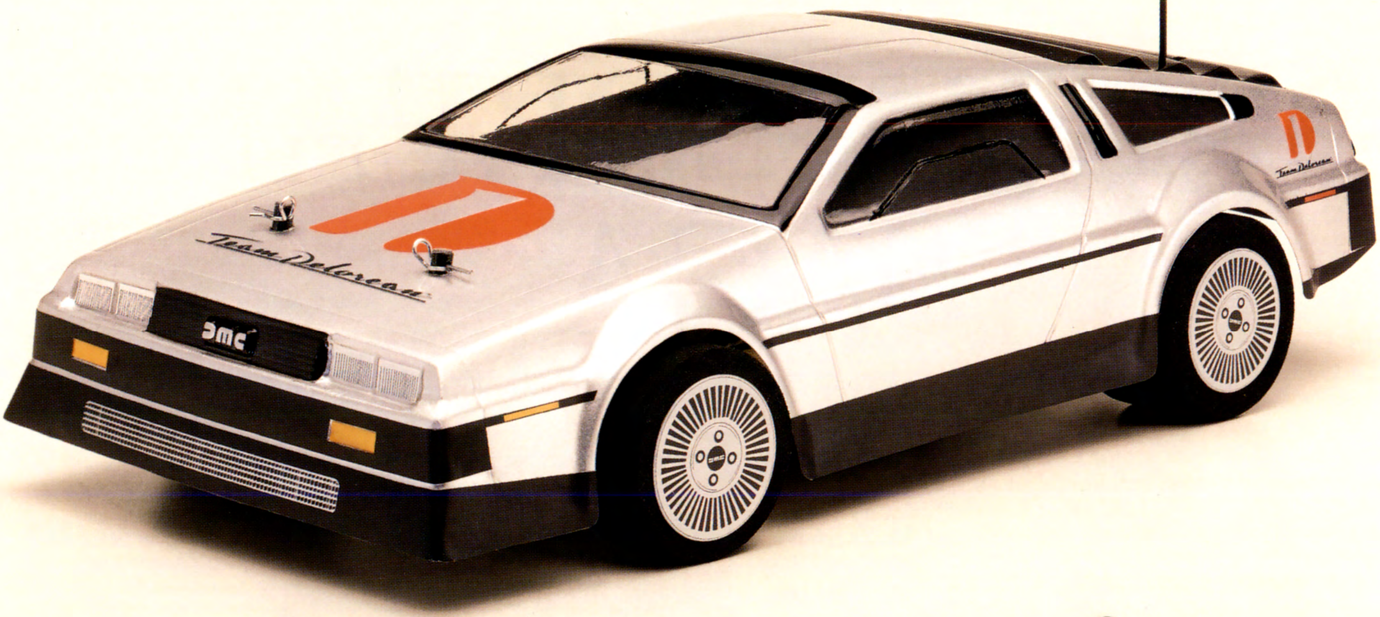
Lotus' mastery over polyester body building was another plus in favor of the DeLorean-Lotus association. Originally, the DMC was to have been constructed using the ERM process,whose patent John Z. DeLorean had bought from Shell. It was therefore necessary to find a company which was equally able to develop the chassis and mechanical elements as well as produce the polyester body parts.

Also, and not to be overlooked was the fact that time was passing swiftly and the DMC was beginning to lose its credibility. It was urgently necessary to get the automobile into production and Lotus offered a rapidity of execution that Porsche couldn't. A management committee was set up by Lotus to direct the DeLorean project with the father of Lotus, Colin Chapman, acting to ensure overall coordination. Chassis and body development were to be under the supervision of Colin Spooner while Tony Rudd (the former BRM Formula

CONTINUED ON PAGE 21

October 2, 1978, official inauguration of the DeLorean factory in Belfast. From left to right we can see: Don Concannon, Northern Ireland Minister of State, the DeLoreans and David Cook, Mayor of Belfast.

Challenging fun



for everyone!

Here is the ultimate radio-controlled DeLorean. No expense has been spared to bring you this exceptional re-creation of our favorite automobile.

From its authentic appearance to its state-of-the-art electronics, this beauty will get everyone's pulse pounding the moment they see it. But showing it off is only half the fun. Driving it is the clincher.

When you pour on the power of its competition grade, 'Silver Eagle' motor, thrills jump into high gear because radio-controlled cars are as much fun to watch as they are to race.

You'll really enjoy pushing it to the limit around tight corners. Stretching it all out on the straightaways. The fastest lap wins!

Rocket
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SPECIAL RACING PARTS AND ACCESSORIES

Supplies limited to stock availability.
Prices subject to change.

D6M100	1/12 Scale, top quality hand controls, high-impact body	**$199.50**
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D6M104	Microfine tip detailing paint brush	**$3.85**
D6M105	7.2 Volt Nicad battery	**$29.95**
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D6M107	8 Pack of AA alkaline, long life batteries $4.00 ea./9.00 set	**$3.95**
D6M108	Complete model car kit and accessories Everything you need to race and win!	**$299.50**

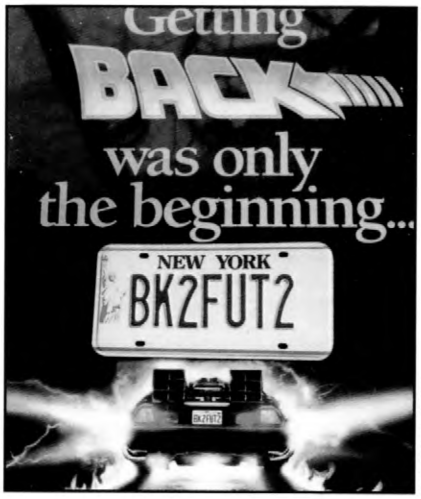
Use your credit card to order by calling **(800) DMC-HELP or (800) USA-DMC1.**

DELOREAN ONE

Remember, your satisfaction is guaranteed.

nchronize
ır watches.
Only
HOURS / MINUTES / SECONDS
nd counting...

Back to the Future countdown at Cineplex Odeon Universal City Cinemas, opening night at Universal Studios, Studio City, CA.



(Right) License plate inertia. The car disappears into the future, leaving Richard Owen's license plate behind.

RICHARD OWENS

ON THE COVER

"Back from the Future" DeLorean

BY CONNIE AND JOE PACE
(PACE'S BODY SHOP, KANSAS CITY, MISSOURI)

The " Back to the Future" DeLorean is made of a stainless steel body that will not rust. Its grey leather interior showcases a digital readout board on the dash, the flux capacitor between the seats, and interior and exterior lighting systems. Also featured are an overhead and lower light console, various gauges and meters, and more than 2,000 feet of wires. A color TV, talking clock, the newest in electronic inventions, the talking alarm, and for special effects CO_2 Freon that can be shot 15 feet out of the turbo thrust boosters at the car's rear—all come "standard" on " Back to the Future."

The 1982 DeLorean has been valued at over $100,000. Built and designed by Joe Pace at Pace's Body Shop, " Back to the Future" takes passengers on a trip through their fantasies.

As it said in the movie, three different times, "If you set your mind to it, you can accomplish anything." So when 5-year-old Joe Jr. wanted to see the family car look and perform like the one in the movie, Joe Sr. set out to accomplish a dream. And did just that!

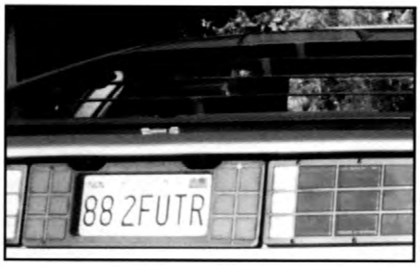
Additions to the car now include a V.C.R., color T.V., C.D. player, 10 speakers, 3 amps, 650 watt sound system, and a talking radar detector.

The DeLorean is used for many functions, grand openings, fund raisers, birthdays, and promotions. To maintain the value of the DeLorean, there were no holes drilled inside or outside of the car. Everything was installed on the car with two-sided tape and nylon ties. Everything can be removed in about 2 hours, and the car becomes a normal DeLorean.

The car was changed over in July of 1986 to " Back to the Future" and is driven from 55 to 75 miles daily. This is not just a show car!

Recent performances of the "Pace" car include an appearance in Atlanta, Georgia for "The Ultimate Electronics Expo" featured at Macy's department store. At the Weston Crowne Plaza in Kansas City, Hallmark displayed the car for an executive conference presentation about Company growth and advancement... looking into the future. In February, they were in a production special for Channel 4 News "Dream Child." It was a small boy's dream to ride in the "Back to the Future" car. Joe and Connie appear at many affairs, most often for children's specialty organizations and fund raising events. A few years ago, DeLorean One sponsored a flashy show at the products fair at the DeLorean Owners Association national convention in Osage Beach, Missouri, when the "Pace" car miraculously appeared out of their trailer, with helicopter lights flashing, Back to the Future theme song playing, and CO_2 exhaust jetstreaming.

—ED



RAY HAUG

"88 2FUTR"

BY RAY HAUG

This 1981 DeLorean's personalized license plate "88 2FUTR," or 88 TO FUTURE, was inspired by the original movie "Back to the Future." 88 MPH was the speed at which the "Star Car" of the movie was transformed Back to the Future.

This plate is particularly suited to this car as it was alleged by the previous owner to have been one of several cars used in the original movie. Ray and Marcie Haug, of Glendale, CA, the current owners, have not yet tested it at that speed. You see, their DeLorean still has its original speedometer with a maximum indication of 85 MPH. Well, maybe some day the barrier will be broken.

You may notice an essential accessory, added by Ray, is a Third Light from an '86 Corvette mounted on the top louvre, Part No. 918411 with a list cost of approximately $70. It looks as if it were designed for the car.

MORE GULLWING PAGE 27

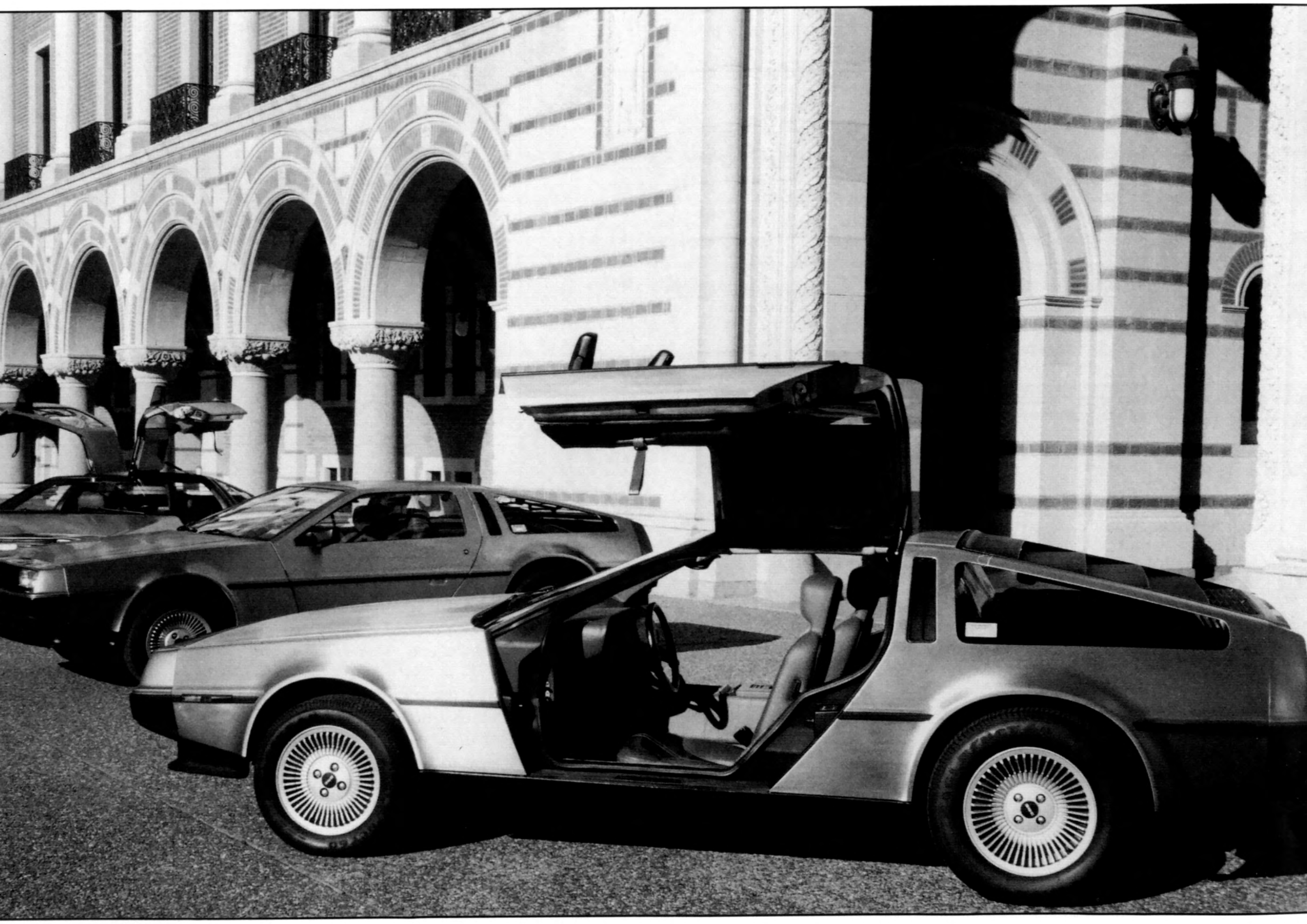
Come to our exciting Southern Jubilee!

Chapter 9 will host this gala event at the distinguished and picturesque Wyndham Warwick hotel in Houston, Texas October 12-14. Only 10 minutes from Hobby airport, the hotel is beautifully situated in the city's historic Museum District. You'll love its southern elegance.

This unforgettable weekend will take you back in time to the gracious and romantic days of the old south.

Here is just some of the fun you'll have:

- 'Gone with the Wind' Ball with live orchestra
- Magnolia Time Rallye through Houston's most historic and scenic areas
- Official Concours d' Elegance at renowned Rice University
- Raffles, great cuisine, tech talk and much, much more



Chapter 9
For further information contact:
Mary Ruth White
4310 Bellaire Blvd.
Bellaire, Texas 77401
(713) 993-4490 *(Daytime)*
((713) 664-1833 *(Evenings)*

DELOREAN OWNERS ASSOCIATION

The first production automobiles came off the line on January 21, 1981...but the following two months were used for personnel training.

Aerial view of the Belfast factory. The administrative buildings are on the lower right while the test track can be seen on the upper left.

SAGA *(FROM PAGE 17)*

One race car engineer) was to develop the rolling gear.

In the beginning, 190 Lotus employees were assigned to the DeLorean project. In spite of this impressive team, the project was to have taken 18 months to reach maturity. This, in actuality, represented only the time necessary for fabricating a body.Caught short, Lotus didn't have enough manpower available to first develop the chassis and rolling gear, and then to conceive a body suitable for housing it all. It was therefore necessary to work backwards: first define the exterior of the automobile before developing what was to go underneath! In retrospect, it must be recognized that no other company could have accomplished such a job in so short a time as Lotus did. It's appropriate to point out,in Colin Chapman's favor, that he was used to designing certain new aspects of his racing cars in his truck-workshop, while enroute to the race course!

Current Lotus Managing Director, Michael Kimberly, has admitted that if Lotus had been given a carte-blanche by DeLorean, they would have eliminated the gull-wing doors, thrown away the stainless steel body idea and transferred the motor to a mid-engined configuration rather than the overhung rear position. John Z. DeLorean rejected all of these propositions, however. Since Lotus was an independent engineering office,they had no other choice other than to respect the client's specifications.

Furthermore, declares Kimberly, "I believe one of the major reasons we were awarded the DeLorean contract was the incredibly short time limit for developing the automobile before it was to be put into production. On the other hand, we recommended transferal of all of the Lotus Esprit's technology in order to reduce the engineering and development work needed for the DMC-12. That allowed us to avoid a lot of trial and error."

As for DeLorean's ERM process, it was replaced by Lotus' VARI process (Vacuum Assisted Resin Injection). The ERM approach would have separated the interior plastic cell into pressure die molded upper and lower sections which would then have been joined together.The VARI system retains the two piece body concept (upper and lower) which are later glued together to form an interior frame, but the complicated dies required by the ERM approach are replaced by simple molds. Fiberglass sheets are spread over the mold's female half, the male part is then brought into place from above, clamped and hermetically sealed. Air is then pumped out to create a partial vacuum, thereby facilitating resin entry and mixing with the fiberglass matrix. Abandoning the ERM system in favor of the VARI process certainly signified the shelving of a revolutionary process for a more conventional, but well-mastered, one. But in giving up a system for which he held the license and agreeing to one owned by Colin Chapman cost John Z. DeLorean an additional $5.1 million.

The task of working out the details of the DMC-12 was the one which took Lotus the longest. Eighteen prototypes were constructed out of polyester (the stainless steel body panels weren't as yet available and,in any case, they still required styling modifications), eleven of which covered hundreds of thousands of test kilometers on the roads surrounding the Lotus factory.Twenty-two supplementary prototypes were constructed for passing the different type certification tests (including the crash tests). Lotus even went so far as to construct test beds on which certain automobiles were subjected to several million oscillations for testing suspension and material reliability/durability.

At Hethel, the DeLorean became more and more like an Americanized version of the Lotus Esprit. Even the construction of the DMC-12's interior framework was very similar to the Esprit's, more or less the only difference being that the former's was destined to be covered with stainless steel body panels. Even though there is a striking resemblance between the two chassis,the DeLorean's is easily recognizable by its greater width and increased solidity, the DMC-12 being both larger and heavier than the Esprit. The description of the front suspensions of the two vehicles is

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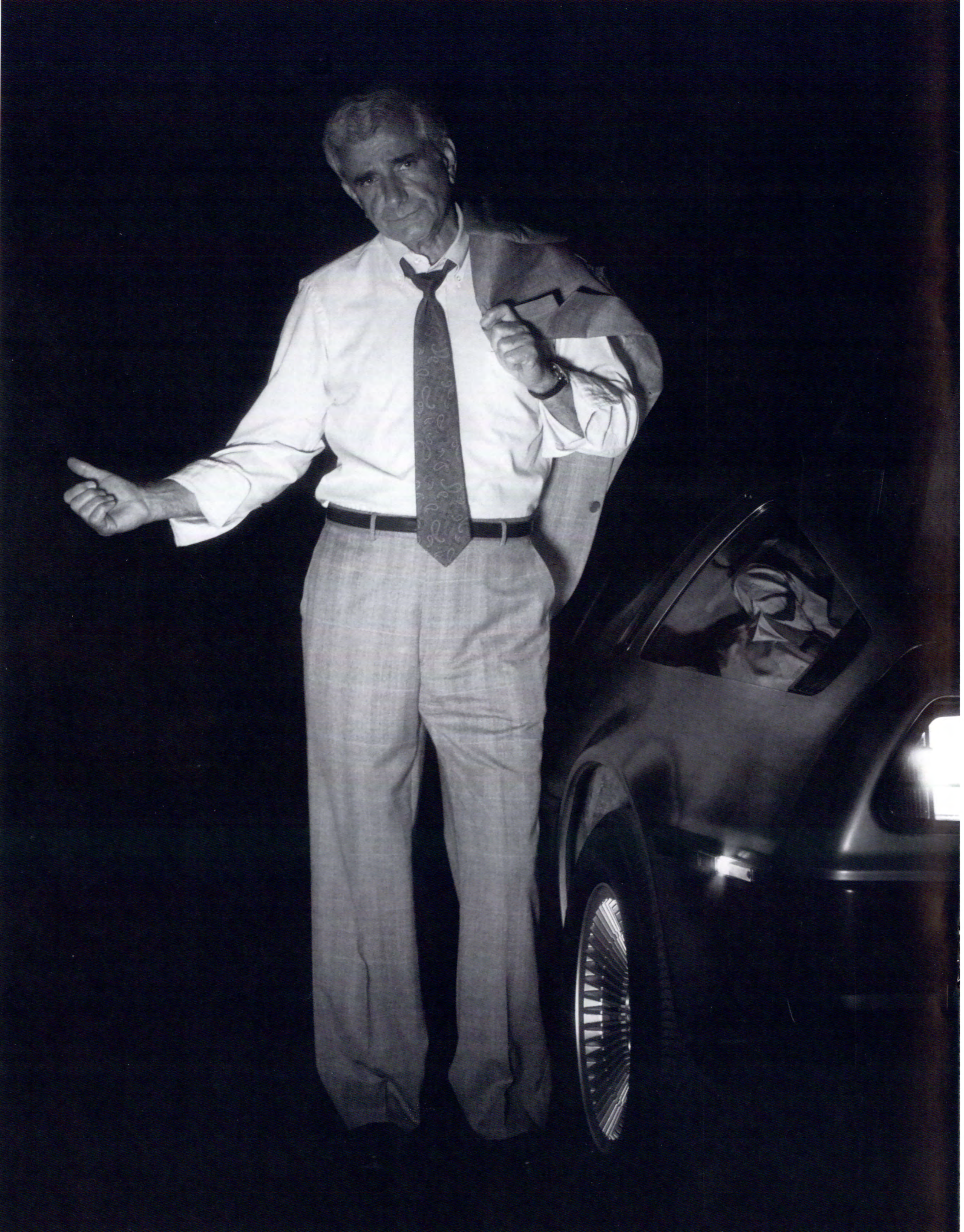

“Bargain” service can help you make new friends!

What is “bargain” service? To begin with, it’s rarely a bargain, because it can cost you a lot more in the long run.

You can get “bargain” service one of three ways:

1. Your car gets quick-fixed rather than having the full problem corrected. Before long, you’re back in the shop.

2. It gets “fixed” incorrectly by someone who doesn’t understand the car.

3. Inferior or deteriorated parts are used. So, once again, you’re back in the shop when the parts break.

Unfortunately, like a lot of so called bargains, you don’t realize you’ve wasted your money until after the fact.

At DeLorean One, you can be assured you’ll get your money’s worth, because our goal is to build a relationship with you, not just to sell you parts.

We want to be the support source for your car now and as long as you have it. So, quick fixes and inferior parts just don’t fill the bill at DeLorean One.

- All DeLorean parts and accessories shipped anywhere
- Two complete service centers

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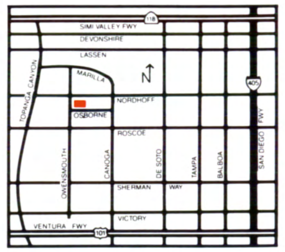
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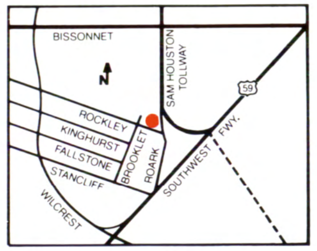
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SAGA *(FROM PAGE 21)*

identical, the only difference being the DMC-12's use of pieces of more massive section. The rear suspension also is Esprit-derived but suitably adapted to the DeLorean's needs. Meanwhile, even as they were mining the maximum amount of technology from the Esprit in order to gain time, Lotus' role in the DeLorean project was also taking a turn radically different than that initially foreseen. Originally, Lotus was to ensure construction and development of a series of prototypes, but as the months rolled on its responsibilities were to steadily increase.

Construction of the factory was begun—finally—on October 2, 1978. It was kicked off with a pompous ceremony involving all the concerned English and Irish politicians, the members of the press...and IRA demonstrators which showed up to protest the imprisonment of their terrorist comrades. Joy and pride were obligatory at Belfast, since—even though Renault had been consulted regarding the factory layout and assembly lines—the site architects, Mr. Brodie and Mr. Hawthorne, were hometown boys. Two local firms—Farrans and McLaughlin & Harvey—were selected to carry out the major construction with small regional enterprises acting as sub-contractors. The factory was ready to function, that is, to begin automobile production,only two years after site inauguration. In fact, it would be more accurate to speak in terms of automobile assembly since, except for the polyester sub-frames which were fabricated on-site, all other DMC-12 components were delivered by outside suppliers!

The first production automobiles came off the line on January 12, 1981, but the following two months were consecrated to personnel training. In fact, several hundreds of automobiles were built with this one and only purpose: to familiarize the newly hired (and non-specialized) workers with the techniques required to put together an automobile.

THE SUPPLIERS

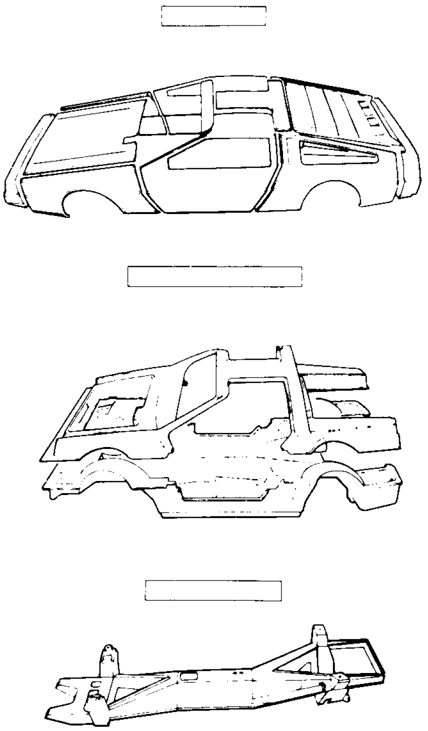
Although the automobile's interior framework—its polyester under monocoque—was fabricated at the Belfast factory, the boxbeam chassis was assembled in England by GKN. This company also supplied the homokinetic joints and certain suspension elements. GKN's affiliate, Kent Alloys, supplied DeLorean with light alloy rims. Other suspension components were fabricated in England by Tallen Engineering, the antiroll bars and suspension springs came from Jonas Woodhead; Girling supplied the disc brakes; and the tires wore the Goodyear brand (NCT's). Inside the cockpit, the seats came out of Britax, their cushions from Vita Cortex, and their leather covers were supplied by Bridge of Wear Leather, in Scotland. The windows were fabricated by Saint-Gobain in France.

Not to be unpatriotic, DeLorean also used some Amercan suppliers: Sylvania for the headlights, Tenneco Walker for the exhaust system and Rockwell International for the interior accessories. Even DeLorean's former company, General Motors, for certain other components; AC Sparkplugs was chosen to supply the sparkplugs and the dashboard instrument cluster; Saginaw Gear furnished the steering column; Harrison Radiator the setup for air conditioner evaporating duties and Delco Remy for the batteries.

The plastic fuel tanks were furnished by Dyno Industries AS of Oslo while some of the elements of the gull-wing doors were sent by Harman, in Germany (they were also responsible for outside rear-view mirror construction). The gull-wing door's torsion bars were stamped Unbrako and the seals came from the Schlegel company. The motor/gearbox assemblies were shipped completely assembled from the Franco-Swedish Motor Company, located in Douvrain. And—ultimately—the famous stainless-steel body panels came from Lapple (FRG) in Germany, stamped from sheets produced by BSG Stainless of Sheffield, England.

As the foregoing list of supplier shows, the DeLorean wasn't a conglomerate of suspicious components of shady origin. The people who conceived the automobile and who were involved its development were among those used to dealing with the best suppliers in the world.

Three main elements make up a DMC-12: body made up of stainless steel panels, which attach to a polyester shell molded in two halves then glued together, these integrating a boxbeam chassis.



A SIMPLE DUSTING OFF

Rightfully considering that his automobile's styling had begun to show its age, John Z. DeLorean decided to ship the original mock-up back to Ital Design so that the firm's master designer, Gioretto Giugiaro, could rejuvenate the design. Remember that the latter had suggested, in 1975, a series of propositions penciled over photos of the profile in order to indicate to DeLorean and Collins the various side window possibilities (see previous episodes). The final choice had settled on the number two design, the same one which included the door window cut below the body line so as to enhance visibility (similar to what is done on a Renault 14, for example).

Four years later (in 1979), Giugiaro seized the opportunity he was being offered in order to return to his original number-one design, the one where the body line is unbroken from the front wing all the way back to the rear fixed side window. He also took advantage of the situation to modify the ventilation intakes between the door and side window...and everyone agreed that the subtle modifications were sufficient to give the automobile a more modern look. Nevertheless, this minor face-lift, as DeLorean called it, implied a complete recasting of the lower body mold, not to mention the new equipment for the sub-contractors responsible for the windows, and various mechanisms. In brief, the waltz of the dollars continued and the resulting work become enormous: To such a point that Lotus was obliged to increase the number of people assigned to the DeLorean project—from 190 to 300. Before the DeLorean contract, the Lotus factory had been staffed by a total of only 450 persons! Lotus had therefore significantly increased its work force as the pace quickened, until it bordered on 600 people!

At the end of the month of December, 1980, Lotus had completed the DeLorean project, the Belfast factory was within a few weeks of turning out its first production automobiles and the majority of those concerned at Hethel had made the trip to Belfast to ensure the startup...

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WHAT HAVE WE DONE FOR YOU, LATELY?

BY DAVID KNUDSON
MEMBER COMMUNICATION DIRECTOR

Occasionally, we get letters from members asking, "What have you done for us, lately?"

Watching the various Association directors put in so much voluntary time and energy through the years, I'll have to admit that my first reaction to these letters isn't very positive. But, then I realize that much of what the board does, has done, and continues to do to maintain and build this Association into such a dominant force is behind the scenes.

Of course, most members realize the tremendous amount of work that goes into producing DeLorean World and national conventions. But, what else does the Association do for its members?

To start with, considerable time is spent developing and maintaining communication with local chapters. We believe that chapters can provide the greatest number of obvious benefits to individual members by providing them with nearby social and technical forums and by supporting their local service centers.

Secondly, the Association has become the spokesman for the DeLorean marque. So members of the board are continually providing a positive viewpoint to newspapers, television, radio, magazines, book publishers, anyone who contacts them. And there are plenty. Our goal is to improve the image of the marque and therefore, increase the value of all DeLoreans. These efforts have produced numerous positive news stories, around the world, regarding our cars.

But, even these hours can't compare to the financial/tax/bookkeeping, legal/record-keeping, correspondence, membership and many other behind-the-scenes management hours that go into keeping the Association alive and well on a daily basis.

The other day, I got a letter from a disgruntled member stating that all he got for his dues was four magazines. It so happened that he lived only a few miles from one of our most active chapters. A discussion with the chapter coordinator revealed that he had never attended any of their tech seminars, dinners, rallyes or anything else.

In short, I think we provide virtually everything possible for our members. If, on the other hand, a member does not want to participate, I don't really know what else we can do for him.

I welcome your comments.

David Knudson c/o Walker, Knudson & Campbell, 2500 Wilshire Blvd., Suite 602, Los Angeles, CA 90057.

Please, Please, Please Return the Card!

BY PHYLLIS BALDERSTON, SECRETARY

Inserted into this issue you will find a post card concerning the term of office for the Board of Directors. PLEASE, PLEASE, PLEASE FILL OUT AND RETURN THIS CARD AS QUICKLY AS POSSIBLE.

The recent election (September, 1989) cost the DeLorean Owners Association over $1400. Most of that cost was in first class postage which is required by the bylaws; printing and paper costs account for the rest. According to our bylaws, each active member must first be notified of the pending election and of the slate recommended by the Nominations Committee. This notice is then followed within the next two months by the ballot itself.

The recent revision to our bylaws, recognizing that 10% of the membership which constitutes a quorum are unlikely to attend a business meeting, instituted the two-step mail election process. The two steps are needed to permit nominations by a group of members as well as by the nominations committee.

This is a good system. Unfortunately, it is also a very costly and time-consuming one. The costs are fixed—there is no way they can be reduced unless the price of stamps is reduced. Somehow, we don't see that happening. We feel that the cost of a yearly election is disproportionately high.

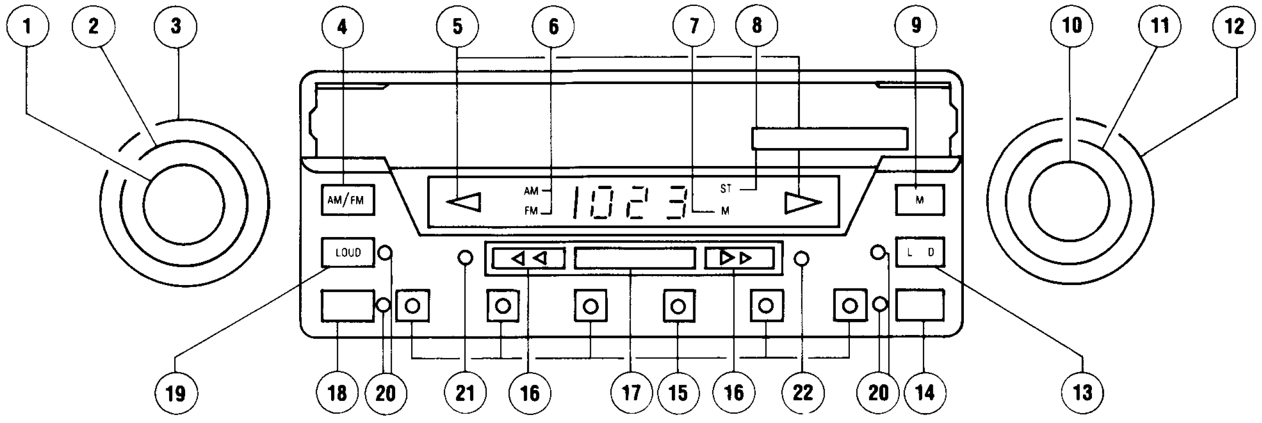
Therefore, in the interest of economy, we strongly recommend that the terms of office of the Board of Directors be increased to two years. This will allow the election process to proceed at a reasonable pace and, most importantly, be much less costly to the membership.

The post card inserted into this issue needs your vote and your 15-cent stamp. You may vote yes or no, but please vote. I repeat again, please send your vote back as quickly as possible. The deadline for returning the post card is **June 15, 1990**, but please don't wait. Mail the card now—your vote is needed.

MORE GULLWING PAGE 36

ASI AUDIO SYSTEMS RADIO

(Model No. 5,000,000)



This radio may be original DeLorean equipment

1 On-Off Volume Control Push for Radio Station Seek Push for Tape Program Change
2 Treble Control
3 Bass Control
4 AM/FM Selector Button
5 Tape Direction Indicator Lights
6 AM/FM Indicator Lights
7 Memory Indicator Light
8 Stereo Indicator Light
9 Memory Activate-De-activate Button
10 Manual Tuning Control
11 Left-Right Balance Control
12 Front-rear Fader Control
13 Local/Distant Control
14 Dolby Noise Reduction Button
15 Radio Pushbuttons
16 Fast Forward/Rewind Controls
17 Tape Eject Control
18 Tape Equalization Button for Metal Tapes
19 Loudness Control
20 Function Lamps (On when Function is On)
21 Clock-Hour Set Control
22 Clock-Minute Set Control

RADIO OPERATION

TO TURN TAPE PLAYER OR RADIO ON (1)

The ON-OFF switch is combined with the VOLUME control, both of which are operated by the left front knob. Turn this knob clockwise until a "click" is heard, which indicates that the radio is now "ON." Further clockwise rotation will increase the volume.

AM/FM SELECTION (4)

The desired broadcast band is selected by the AM/FM Selector Button which is the button marked "AM/FM." The radio has the FM and AM band indicators **(6)** located to the left of the Radio Frequency display and the appropriate indicator will light up depending on whether FM or AM band is operating.

MANUAL STATION TUNING (10)

This radio is equipped with an electronic tuner. To tune to a station manually rotate the right front knob clockwise for up scale tuning and counterclockwise for down scale tuning. The frequency will appear on the digital display area of the radio. On the AM band the frequency will appear in steps of 10 KHz and on the FM band the frequency will appear in steps of 0.2 MHz. Each "click" while rotating the manual tuning knob will be one step on the respective broadcast band. Tune the set carefully until you are exactly on the station. This FM receiver is equipped with an automatic muting circuit.This circuit filters out virtually all off station background noise when tuning from station to station. Also, when background noise is greater than the transmitted station signal, both the station signal and background noise are muted (filtered) out.

SEEK TUNING (1)

The SEEK tuning feature of this radio automatically locates the next strong station available on the radio dial when actuated. This feature operates in the up scale direction. The SEEK tuning feature is activated by pushing in the left front knob when in the radio mode. The radio automatically locates the next strong station and stops. This procedure can be repeated by pushing the left front knob again. Repeat until the desired station is being received. For maximum sensitivity of Seek Tuning feature, the L/D button **(12)** should be in the distant position.

TUNING PUSHBUTTONS (15)

Each tuning pushbutton can be set to two stations, one on the AM band and one on the FM band. This provides a total of twelve stations which can be selected by pushbutton operation. Each tuning pushbutton also has a dual color LED light in its center. These lights allow the user to easily locate each pushbutton at night. The lights change from red to green to indicate the last pushbutton operated.

MEMORY (9)

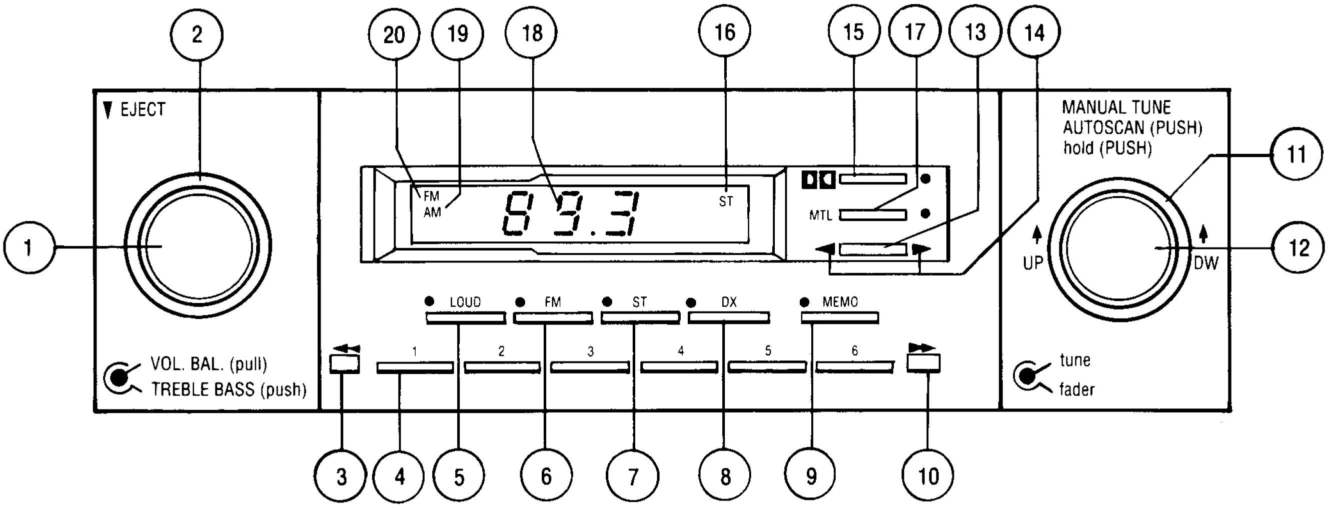
Set pushbuttons as follows:

1. Select the desired broadcast band with the AM/FM selector button **(4).**
2. Carefully tune to the desired station with the manual tuning control **(10)** or by using the SEEK tuning feature **(1).**
3. Press the top right button marked "ME" for approximately 3/4 second until the orange colored "M" appears on the display area **(7).**
4. Press one of the tuning pushbuttons. The "M" on the display area will gout indicating the button is now preset to this station.
5. Repeat steps 2-4 for the remaining buttons.
6. Set the AM/FM selector button **(4)** to the other broadcast band and set the six pushbuttons in the same manner as above.

NOTE: THE ELECTRONIC CONTROL FUNCTIONS IN THE RADIO WILL NOT OPERATE PROPERLY IF POWER TO THE RADIO IS

CONTINUED ON PAGE 35

CRAIG RADIO



This radio may be original DeLorean equipment

1. Power off/on, volume control.
   (Pull) Balance and (Push Cassette Eject)
2. Treble and (Push) Bass Control
3. Fast-Forward/Rewind Push Button
4. Station Preset Pushbuttons
   (6 AM & 6 FM)
5. Loudness Pushbutton and Indicator
6. AM/FM Pushbutton and indicator
7. Stereo/Mono Pushbutton and Indicator
8. Local/Distant Pushbutton and Indicator
9. Memory Enter Pushbutton and Indicator
10. Fast-Forward/Rewind Pushbutton
11. Fader Control (Front-Rear Speakers)
12. Tuning Control and (push) Station Scan)
13. Tape Reverse Pushbutton
14. Tape Run Indicators
15. Dolby Noise Reduction Pushbutton and Indicator
16. Stereo Indicator (Red)
17. Tape Equalization Pushbutton (Metal Tapes) and Indicator
18. Frequency Display and Cassette Door
19. FM Indicator (Green)
20. AM Indicator (Orange)

AM/FM-STEREO RECEIVER/ CASSETTE PLAYER (FIG. 14) SUMMARY OF OPERATION

RADIO RECEIVER OPERATION

1. Rotate the VOLUME control clockwise to turn on power.
2. Select the AM or FM band desired. Push the FM button to illuminate the FM indicator placing the unit in the FM mode. Press the pushbutton again to return to the AM mode.
3. While observing the frequency display, rotate the TUNING control in either direction to select the desired station.
4. For stereo reception, press the ST (Stereo) pushbutton to illuminate the stereo indicator placing the unit in the stereo mode.
5. Adjust the VOLUME, TREBLE, BASS, BALANCE, and FADER controls as desired.

TO PLAY A TAPE

1. Rotate the VOLUME control clockwise to turn on power.
2. Push the cassette (tape edge to the right, desired side up) into the cassette compartment. The tape will then be automatically drawn into the deck for play.
3. Adjust the VOLUME, TREBLE, BASS, BALANCE, and FADER controls as desired.
4. To eject tape, depress VOLUME control knob.

OPERATION AND DESCRIPTION (FIG. 14)

The VOLUME, TREBLE, BASS, BALANCE, and FADER controls and the LOUD (loudness) pushbutton are used to operate both the radio and the tape player. The TUNING control, and the ST (Stereo) FM, DX (Distant), MEMO (Memory) and PRESET pushbuttons are used to operate the radio only.

The DOLBY, MTL (metal), REVERSE, EJECT, and ◀◀ and ▶▶ Fast Forward/ Rewind) pushbuttons are used to operate the tape player only.

Rotate the VOLUME control clockwise to turn on power and to increase the sound to a comfortable listening level. The BALANCE control is controlled by the same knob and may be pulled lightly outwards and rotated either clockwise or counterclockwise to adjust the relative loudness of the left and right side set of speakers. The TREBLE control may be rotated to increase or decrease the treble frequencies. The BASS control is the same knob and may be depressed and rotated to increase or decrease the base frequencies. The FADER control may be rotated to adjust the relative loudness of the front and rear pair of speakers.

DIGITAL DISPLAY

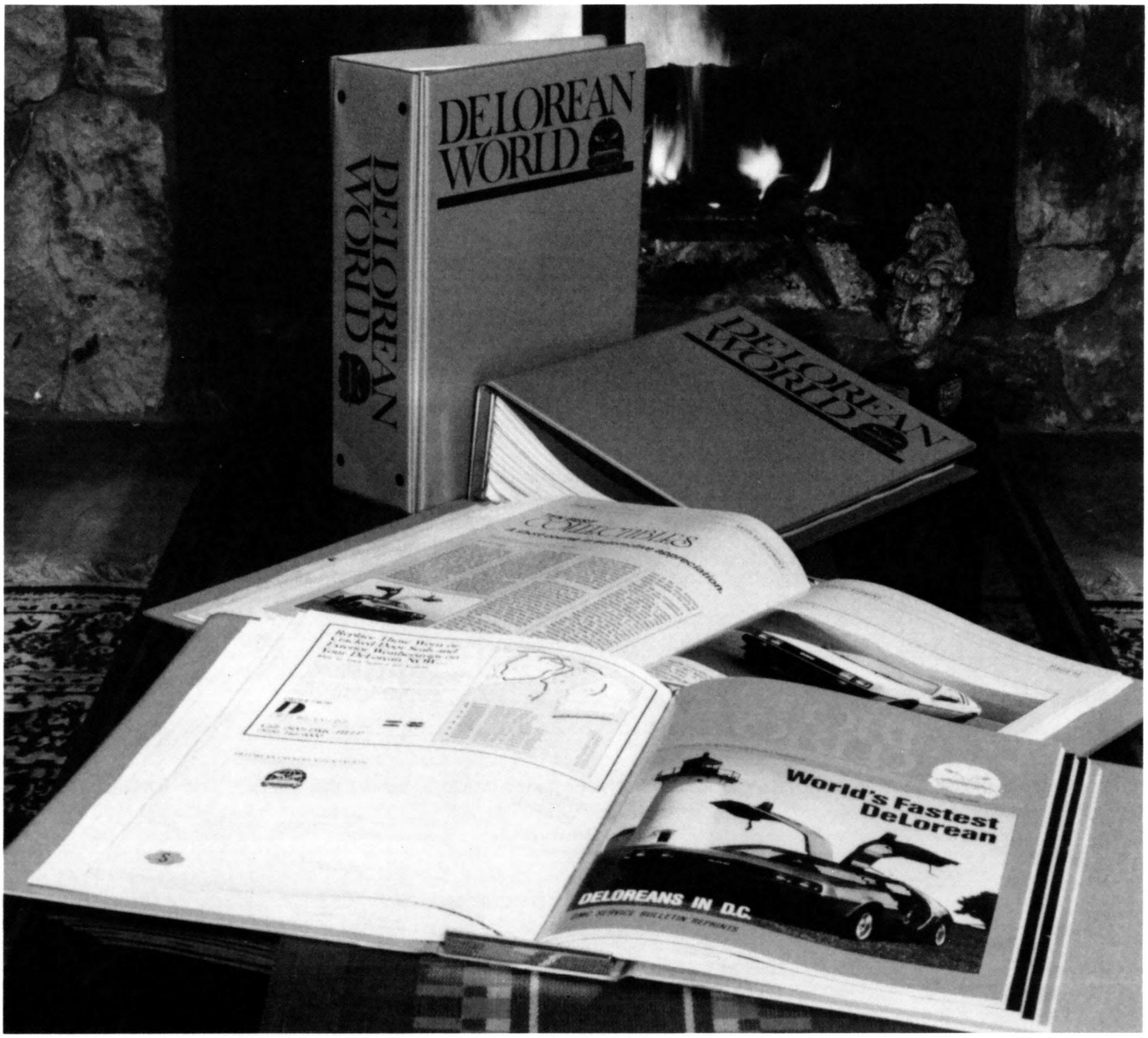
Whenever the radio is turned on, the digital readout will show the precise radio frequency that was selected when the radio was last turned off.

The display will indicate either the AM or FM mode in use. When in the FM mode, the letters "FM" will appear in green at the upper left hand corner of the display. In the AM mode the letters "AM" will appear in orange at the lower lefthand corner of the display. When the unit is in the FM mode and the ST pushbutton is pressed, the letters "ST" will appear in red at the upper right hand corner of the display if the station is broadcasting in stereo.

FOR RADIO RECEPTION

Turn on the radio, following the instructions given in the summary of operation. Note that the radio will not operate while a cassette is playing. To receive FM broadcasts, press the FM pushbutton. The FM mode will be indicated by the illumination of

CONTINUED ON PAGE 34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COMPARATIVE ANALYSIS OF OIL FILTERS

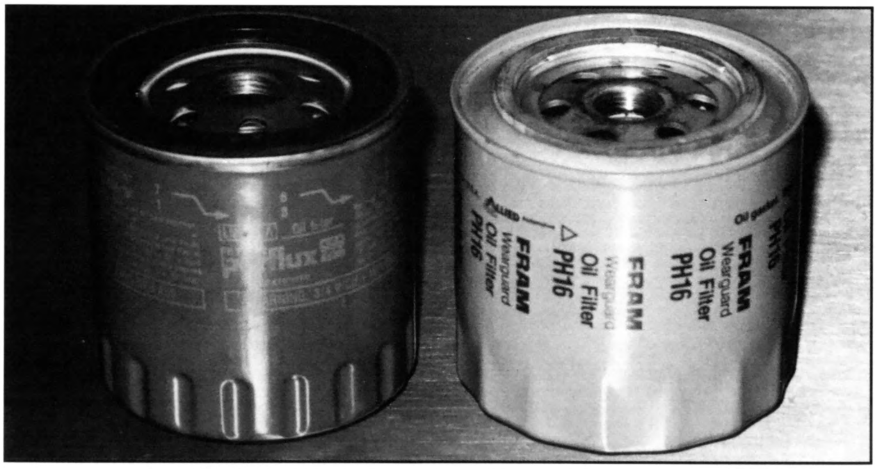
Stephen Wynne — DeLorean One, Inc., Houston, Texas
photos by Kjell Myhre

The original oil filter for the DeLorean automobile is the PURFLUX, Part No. LS 410 A. This is a far superior product to the most commonly used after-market replacement oil filter, the FRAM, Part No. PH 16.

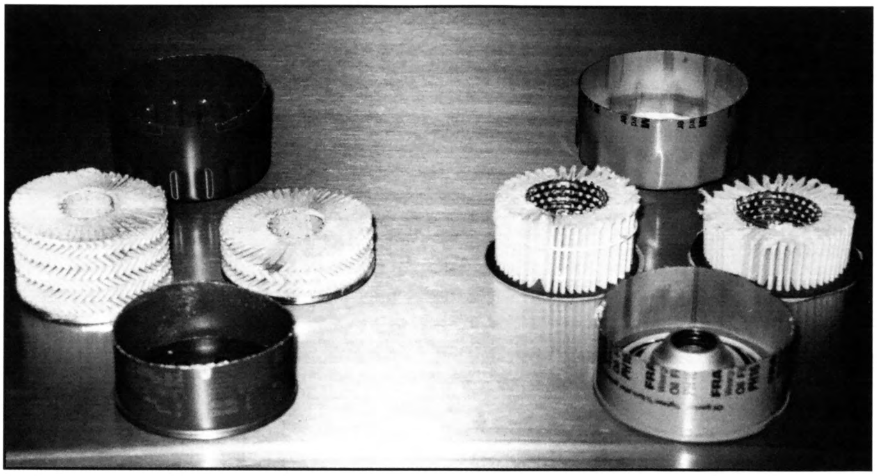
It is important to show the differences between these filters, which are very significant as far as the quality and integrity of the products.

The FRAM Oil Filter is larger in diameter than the original, which makes it difficult to install and it rubs against the oil pressure sender for the oil gauge.

In the photos, note the differences in the interior components; the string around the element from the FRAM filter was not installed by the photographer, but by the company. Also note the herringbone pattern and density of the superior and original PURFLUX filter. The significantly larger surface area construction obviously renders the PURFLUX Oil Filter a higher efficiency filter.



PURFLUX **FRAM**



TECH Q & A

Q I recently went to a self-service facility and washed the engine of my car. After washing the engine, it would not start. I had my car towed to my regular repair shop and it was expensive and time-consuming for repairs. How could I avoid this problem in the future?

A When cleaning the engine or engine compartment, it is advised to spray as little water on the engine as possible. It is best to spray cleaning solvent onto a shop towel and rub by hand. Any other method, including steam cleaning, may result in the possiblity of moisture getting into the engine. The engine may then stop running if the electrical system becomes moisture contaminated.

Q I need to put brake or clutch fluid in my car. It is indicated on the sticker to use DOT 4 only. I am not able to buy DOT 4 locally. DOT 3 seems more available. Can DOT 3 be used as a substitute for DOT 4?

A No, DOT 3 cannot be used as a substitute for DOT 4. A good brand name of DOT 4 brake fluid is Castrol GTLMA.

Q I notice that my sunshade is cracked in the center. At a recent chapter meeting, I noticed a couple of other cars had the same problem. Why?

A Check the sunshade struts to make sure they are not weak. When the louvres are open and the struts are in the extended position, they should require a reasonable amount of pressure to close. If they are weak, they may allow the sunshade to slam down. The shock causes the louvre to break in the center. It is strongly advised not to allow this to happen, as it may require replacing an approximately $400 part, rather than just replacing the louvre struts which run only about $44 each.

Q The doors on my DeLorean droop and I am considering adjusting the torsion bars or replacing the door struts. Which is the correct order to proceed?

CONTINUED ON PAGE 33

OPTIONAL TRANSMISSION COOLER

by Jan Harde
photos by Kjell Myhre

As most everyone would agree, especially your mechanic, your car's worst enemy would be that of dirt and heat. With that in mind, I always try to find ways of reducing the latter.

I own a 1983 with automatic. Those of you who drive an automatic know that the wonderful way of cooling the transmission is to run two cooling lines from the transmission, and over to the return from the radiator. There is a capsule surrounding the return line which is to help cool the transmission fluid.

This all sounds wonderful, but if you ever sat in traffic on a hot day with your air conditioning on, watching the temperature gauge moving up and up...you know what I mean! Well, even if your coolant system is super clean and free of air, you are, without a doubt, straining your engine as well as shortening the life of your transmission.

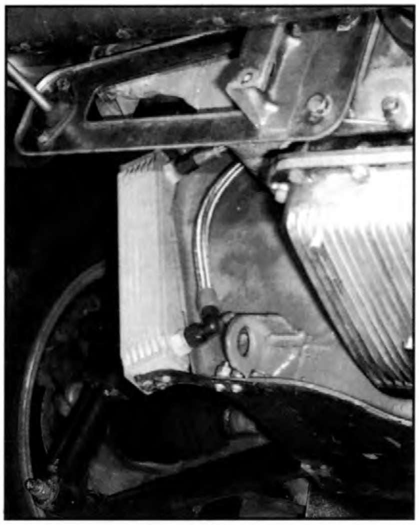
There is one effective way of solving this —a trans-cooler! Now comes the question of where to put it; hmmmm—well, it can go in front of the air conditioner condenser or well, rather unorthodox, but why not, on the rear crossmember. Why there? Well, I believe that the installation should be where effectiveness is great and, for me, low cost.

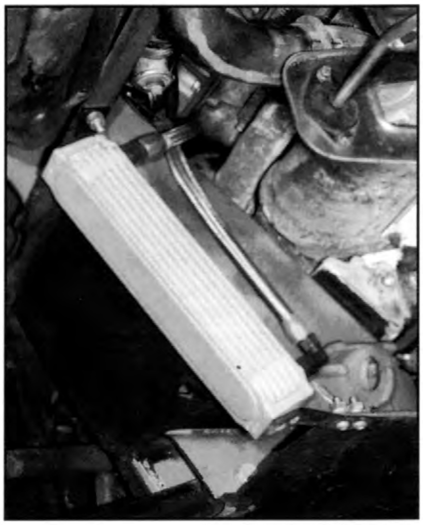
Placing the unit up front reduces somewhat the airflow to the air conditioner condenser and the radiator. Also, the cost of steel braided aircraft fitted hose is not cheap, and this is the best way to install a cooler.

As you can see by the pictures, the installation is very simple and costs are not too high. The cooler used in my case is a Scandinavian-made unit designed for racing—very strong and durable. A hammer will hardly make a dent.

A similar unit can be obtained at a local racing shop. Simply disconnect your present coolant lines and intercept with your new braided line and stay clear of all moving parts with just enough slack not to kink a line. After installation, run your engine a few minutes to fill your cooler and lines, then turn it off, check the dip stick and fill as needed.

One negative to this installation would maybe be that of looks. Well, to me this is not a concern since I am more concerned about repairing my transmission or replacing the computer governor.





The most positive thing you will find is that the engine temperature will drop considerably—for me, maybe as much as 20 or 25 degrees.

Once again, I wish you lots of luck, and as always, many happy and coooool miles into the future.

Q&A *(from page 32)*

A First, replace the door struts if they have been on the car for eighteen months or longer. If this does not solve the problem immediately, adjust the torsion bars as per the Tech Notes published in DeLorean World issue Winter, 1986 (Vol. 3, No. 4).

P.S.: There are comments from many people who have adjusted their torsion bars about a year ago when door struts were not available. Since the struts have become available and the owners have installed them, they find their doors are opening much too quickly, which is placing excessive stress on the pins which hold the struts to the body of the automobile. It is advised to reduce the pressure on the torsion bar one to two splines in order to avoid major damage to the fiberglass sections of the built-in roll bar.

Send Tech Questions to: Jon Spurlin, 8900 Oak Park Avenue, Northridge, CA 91325

KJELL MYHRE

Jon Spurlin, Technical Director

CRAIG *(from page 29)*

the FM indicator at the upper left hand corner of the pushbutton and by the FM indicator on the display. To receive FM Stereo broadcasts in stereo, the ST pushbutton must be pressed to illuminate both the ST indicator at the upper left hand corner of the pushbutton and the ST indicator on the display. The radio should normally be operated in the DX mode and should only be switched to Local in areas where signal strengths are very high, i.e., near station transmitters or where excessive interference is noted. To change the unit from the local to the distant mode, press the DX pushbutton. The DX mode will be indicated by the illumination of the DX indicator at the upper left hand corner of the pushbutton. The sensitivity of the radio is increased in the DX mode, enabling it to receive weak FM signals.

In some cases, the received signal may not be strong enough to provide noise-free stereo listening, or some adjacent channel interference may be heard while listening to a stereo program. If this occurs, press the ST pushbutton to extinguish the ST indicators and return the unit to the monophonic mode (a common signal is provided for both the left and right channels) and reception should be noticeably moved. The radio may be returned to the stereo mode whenever listening conditions permit.

To receive AM broadcasts, the FM pushbutton should be pressed to extinguish both FM indicators and illuminate the AM indicator at the lower lefthand corner of the display.

CHANNEL SELECTION

The TUNING knob is a stepped control. Each "click" of the knob to the right advances the station frequency upward. Each click of the knob to the left decreases the station frequency.

You may also automatically scan upwards across either the AM or FM band by momentarily depressing the TUNING knob. When this is done, the unit's scanning circuit is activated and the radio will tune upwards to the next strongest receivable station. It will then pause at this station for approximately five seconds and proceed to the next station on the band. THE UNIT WILL CONTINUE TO SCAN THE ENTIRE BAND UNTIL YOU AGAIN PRESS THE TUNING KNOB. The unit will then remain on the station which you have selected.

DeLorean World 1990 Closing Dates

Submissions – Advertising, Manuscripts, Photographs

Issue	Closing Date
Summer '90	April 1
Fall '90	July 1
Winter '90	October 1

When the unit is scanning stations, it is important to note the position of the DX pushbutton. Because the sensitivity of the unit is increased in the DX mode (DC indicator illuminated), more stations will be received during scanning.If you wish to scan only strong local stations, press the DX pushbutton to extinguish the indicator.

PRESET PUSHBUTTONS

The six preset pushbuttons may be used to recall your six favorite AM and six favorite FM stations. To preset stations on AM, first place the unit in the AM reception mode. Next tune the radio to your favorite AM station. Once the station has been selected, press the MEMO pushbutton and the indicator at the upper left hand corner of the button will illuminate. Within five seconds, press the pushbutton of your choice, and the MEMO indicator will go out. (If a preset pushbutton is not pressed, the MEMO indicator will go out after six seconds.) Whenever that preset pushbutton is pressed, the station you have assigned to it will be recalled. Repeat this procedure to preset other AM stations to the other five pushbuttons.

The procedure is the same to preset stations in the FM mode and stations on either reception band may be reassigned at any time and in any order you wish.

NOTE: In the event the vehicle's battery is disconnected or battery voltage is interrupted, all preset pushbutton selections will be cleared from the receiver's memory thus requiring resetting.

LOUDNESS PUSHBUTTON

The LOUD pushbutton has been provided for both radio reception and cassette play. Because the ear becomes less sensitive to low bass and high treble frequencies at low volume, these sounds seem to become lost. Press the LOUD pushbutton to illuminate the indicator at the upper lefthand corner of the button and the normal balance of these frequencies will be restored.

FOR TAPE PLAYBACK

Play the tape, following the general directions given in the Summary of Operation.

The cassette will immediately begin playing, and the side being played with be indicated by the illumination of one of the green Tape Direction indicators located at either end of the REVERSE pushbutton. When the end of the tape is reached it will automatically reverse to play the other side. Tape programs may also be switched at any time by momentarily depressing the REVERSE pushbutton.

A desired tape selection may be more quickly located by running the tape in either direction at high speed. When the ▶ tape indicator (green) is illuminated, depressing the ▶▶ (Fast-Forward/Rewind) pushbutton will cause the tape to run fast-forward and depressing the ◀◀ pushbutton will cause the tape to rewind. When the other side of the tape is played and the ◀ tape run indicator is illuminated, the functions of these pushbuttons are reversed. During either fast-forward or rewind, the tape may be returned to the play mode by partially depressing the opposite (released) pushbutton. When the unit is allowed to remain in the fast-forward or rewind mode, the unit will automatically return the tape to the play mode at the end of the tape. At the completion of the rewind, the tape will replay the same side of the cassette. At the completion of fast forward, the tape will begin to play the opposite side of the tape.

To eject the cassette, depress the VOLUME control. The cassette will also automatically eject whenever the power is turned off.

DOLBY PUSHBUTTON

The Dolby indicator should be illuminated whenever Dolbyized cassettes are played. Press the Dolby pushbutton to turn the Dolby mode on or off. The Dolby Noise Reduction circuit properly decodes Dolbyized cassettes for reduced background noise and wider dynamic range. Turn the Dolby system off when playing non-Dolbyized cassettes.

MTL PUSHBUTTON

The MTL pushbutton sets the proper equalization for either regular ferric oxide tapes or special CrO((2)), ferrichrome, metal, or other tapes requiring 70 microsecond equalization; turn it off for regular tapes (120 microsecond equalization).

TO SHUT OFF ALL POWER

Rotate the VOLUME control counter-clockwise to turn off all power.

CLOCK

To reset the clock, press the button on the left side of the clock for hours, and the button on the right side of the clock for minutes. If the electrical current has been interrupted, the display will flash, indicating a resetting is required.

Brightness of display is automatically reduced when exterior lighting switch is turned on.

ASI *(from page 28)*

INTERRUPTED. THE POWER INTERRUPTION COULD BE CAUSED BY DISCONNECTION OF THE BATTERY, OR LOW BATTERY VOLTAGE AS MAY OCCUR IN COLD WEATHER STARTING. DISCONNECTION OF THE BATTERY WILL CAUSE LOSS OF PUSHBUTTON STATION MEMORY AND THE TIME. THE MEMORY AND CLOCK WILL REQUIRE RESETTING WHEN POWER IS RESTORED. LOW BATTERY VOLTAGE WILL CAUSE FAILURE IN THE SEEK TUNING OPERATION. THE SEEK TUNING WILL OPERATE PROPERLY WHEN POWER IS RESTORED.

STEREO INDICATOR LIGHT (8)

An FM Stereo light, "ST," is located on the right side of the display area. This light will glow whenever the radio is tuned to an FM stereo station whose broadcasting signal is of sufficient strength. If the Stereo signal begins to weaken, the radio will automatically blend to monaural reception. The mono mode will increase the radio's ability to receive the weak signal. As the signal strength returns to a sufficient level the radio will automatically return to the Stereo mode.

LOCAL/DISTANT SELECTOR (13)

The center button on the right side of the radio marked "L/D" is the Local/Distant Selector. When the small green indicator light is on the radio is in the 'Distant' mode. When the indicator light is off, the radio is in the 'Local' mode. This switch allows the user to discriminate the strong ('Local' position) from weak stations ('Distant' position) in the FM mode.

When the radio is in the Seek Tuning mode, this feature allows the use to discriminate the strong stations from weak stations on both the AM and FM bands. Your radio should be in the 'DISTANT' mode for best reception under most conditions, an exception would be in an urban area with tall buildings.

TREBLE CONTROL (2)

The treble response can be adjusted to the desired level with the middle knob on the left side of the radio. Rotating clockwise increases the treble and rotating counterclockwise decreases the response. There is a detent position at the midpoint of the knob's rotation.

BASS CONTROL (3)

The bass response can be adjusted to the desired level with the rear knob on the left side of the radio. Rotating clockwise increases the bass and rotating counterclockwise decreases the response. There is a detent position at the midpoint of the knob's rotation.

BALANCE CONTROL (LEFT-RIGHT) (11)

Adjust the balance control with the right middle knob just behind the manual tuning control to the point where the volume appears equal between the left and right speakers. This control has a center detent position where the volume is exactly equal between the left and right audio outputs of the unit.

FADER CONTROL (FRONT-REAR) (12)

Adjust the fader control, the rear knob on the right side of the radio to the point where the volume appears equal between the front and rear speakers.

LOUDNESS CONTROL (19)

Low volume levels are deceptive to the human ear in that the ear has a tendency not to hear the low and high frequencies (bass & treble) as clearly as the mid-range. The Loudness Control provides boost to the low and high frequencies to compensate for the ear's deficiencies. The Loudness Control is the middle button of the left side of the radio marked "LOUD." When the green indicator lamp is ON, the Loudness Control is ON. When the Lamp is OFF, the control is OFF.

CLOCK OPERATION

With the ignition switch in the ON position and the radio on or off, the time of day will be displayed on the radio display. The radio frequency can be displayed by pressing the "CRO$_2$" button **(18)** or the Dolby NR button **(14)**. The time will reappear after about five seconds. The time is also displayed when the tape player is operating.

TO SET CLOCK

The time of day must be on the display to set the clock. The hour is set by pressing the small button **(21)** to the left of the fast forward/rewind buttons, with a pointed object such as a pencil point. The minutes are set in the same manner by pressing the small button **(22)** to the right of the fast forward/rewind buttons.

TAPE PLAYER OPERATION

Insert the tape cassette into the tape slot until it locks into position. The unit is automatically switched to tape player operation and one of the green tape direction indicators **(5)** located on either side of the display area will be on. The various lights shown when the radio is on will not light up. They will come back on when tape is ejected and the lights relating to the cassette operation will go off.

PROGRAM CHANGE CONTROL (1)

When the tape program reaches its conclusion the tape player will automatically reverse the tape direction and play the other program. To manually change the tape direction, push in the Volume control knob (1). The proper tape direction indicator **(5)** will light.

REWIND (18)

To rewind the tape, depress one of the two control buttons marked with arrows. The button with arrows pointing opposite the direction of the tape, as indicated by the lit tape direction indicator light **(5)** will rewind the tape in order to repeat sections of the tape program. The button will lock in position when pressed fully inward. It can be released by partially pushing in the Eject button. When the button is released, the unit will play at normal speed.

FAST FORWARD (16)

The control button marked with arrows pointing in the same direction as the tape, as indicated by the lit tape direction indicator light, **(5)** will increase the tape speed when depressed. This function allows the location of other sections of the tape program. The button will lock when depressed fully inward. It can be released by partially pushing in the Eject button. When the button is released, the unit will play at normal speed.

EJECT (17)

To eject the tape cassette push in firmly on the "EJECT" button and the cassette will be partially ejected from the tape slot. The unit is automatically switched to radio operation. AN IMPORTANT POINT - DO NOT LEAVE THE CASSETTE IN THE PLAY POSITION WHEN YOU TURN THE RADIO OR THE CAR ENGINE OFF.

DOLBY* NR (NOISE REDUCTION) CONTROL (14)

This tape player is equipped with a noise reduction circuit developed by Dolby Laboratories. It reduces to a minimum the noise commonly referred to as "tape hiss" and improves the reproduction of the high frequency sounds. This circuit will best affect tapes recorded using the Dolby NR process. They will be identified by the"Double-D" symbol and the words "DOLBY SYSTEM" printed on the label. The tape player's Dolby NR circuit is controlled by the bottom button on the right side of the radio marked with the "Double-D" symbol. Press the button when playing tapes recorded with the Dolby Noise Reduction process. The function is ON when the lamp is ON.

* *Noise Reduction System manufactured under license from Dolby Laboratories Licensing Corporation. 'DOLBY' and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.*

TAPE EQUALIZATION CONTROL (18)

The button in the lower left corner of the radio marked "Cr0$_2$" selects the proper tape equalization value of 120 microseconds for normal tapes and 70 microseconds for chrome tapes. Push the button when using hi-bias chrome tape to achieve more faithful reproduction. The function is ON when the green light is ON.

WHAT ABOUT ANOTHER NATIONAL EVENT?

BY DAVID KNUDSON
MEMBER COMMUNICATION DIRECTOR

The Association is abuzz with event discussions. Many members are wondering when, where, or even if there will be another national event.

DeLorean Expo `89 was the largest gathering of nationwide members by far, well over 200 attended. However, it cost the Association considerable money and relatively few attendees were there from the local area.

It was decided long before the Expo that there would be no national event in 1990. However, many chapters will be putting on very ambitious programs in their regions throughout the year. This is the result of a concerted effort to increase the participation in our local chapters.

Then, 1991 will see additional local events plus the largest national convention ever.

Remember, 1991 will be a milestone for the DeLorean because it will be ten years old. Automobile aficionados claim that a car automatically becomes a classic when it is ten. So, this anniversary will need to be celebrated in a fitting manner at the national convention.

I think you'll agree, "ten years old" and "classic" are words that don't seem to fit our cars very well. DeLoreans still look much more futuristic than anything Detroit or Tokyo has on the road TODAY.

Although ten years in the life of a car is auspicious indeed, this must not be the case in marriages. Because, if you weather a decade with your spouse, you can honor one another with something made of tin or aluminum, the traditional 10-year metal. "Thank you, dear, for the lovely mess kit."

DeLoreans still look much more futuristic than anything on the road today.

Well, rest assured that the 1991 national convention will not be called "The 10-Year Tin Jubilee."

So, where will the convention be?

Our original intent was to position national events near viable chapters so that they could pry inactive local members out of the woodwork with a boffo, must-see attraction. But, after twelve such events, it was obvious that we had pried out very few. Like the Expo, far more out-of-staters than local members attended. Hundreds of inactive locals told their Regional Chapter Coordinators before each event that they simply weren't interested in spending money for a "vacation" so close to home. So, we've decided to stop hopscotching across the country and stay in our own backyard.

Cost is an additional reason for this decision. National events that take place out of the Southern California area are very expensive. Which brings up the point as to the fairness of spending any Association money whatsoever on an activity that will only be attended by a relatively small percentage of members. Many believe it simply isn't fair to those who cannot attend.

So, your Board of Directors has wrestled with these problems for some time and concluded that the 1991 convention will take place, but it will be in Las Vegas. Past Vegas events have always been well attended.

Lastly, when will the convention be?

Many members have suggested that our events should be "in season," in other words, during the summer months while the kids are out of school. However, Las Vegas, thanks to its mid-Mojave location, is intolerably hot in the summer. So, we'll likely hold the convention in the fall season.

1989 ELECTION RESULTS

BY PHYLLIS BALDERSTON, SECRETARY

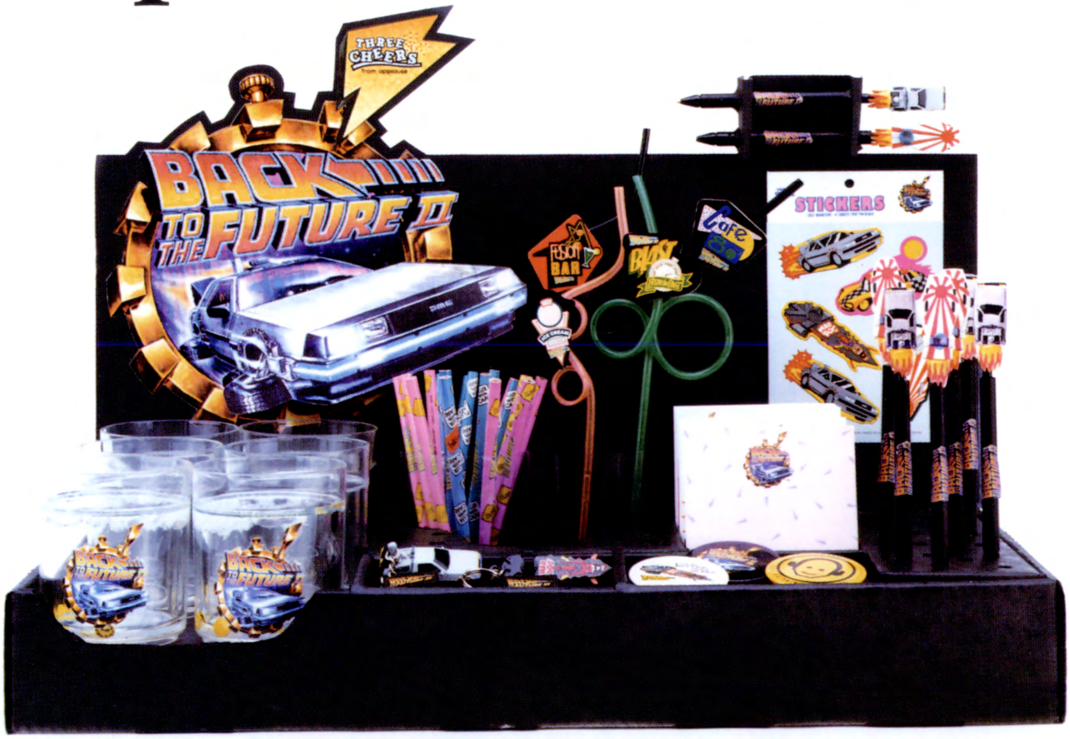
During the month of September, ballots for the Board of Directors *were* received from members all over the country (judging by the postmarks). We even received one from Switzerland. In compliance with the bylaws, the ballots were counted on October 1, 1989 by members Rich Purvis and Kerry and Kristie Carmody. In order for the election to be valid, 190 ballots were needed; 207 were received. 152 voted the complete ballot, the rest a partial ballot. The entire slate was elected. Again in compliance with the bylaws, a meeting of the new board was convened on October 11, 1989 to elect the Board officers. Many of the incumbents retained the positions they formerly held.

The current officers are:

President	Kjell Myhre	Advertising	Robin McNeill
Membership	John Truscott	Concours	Dorothy Bradley
Treasurer	Joan Truscott	Products	Debbie Spurlin
Secretary	Phyllis Balderston	Raffle	Dawn Miller
Technical	Jon Spurlin	Mailings	Millie Bernstein
National Chapters	Ed Bernstein	Directors at Large	Jan Harde
Activities	Mary Lou Knudson		D'Anne Laster
Parliamentarian	Jack Balderston		Barbara Lipana
Editor, *DeLorean World*	Kay Myhre		Dev Michael
Member Communication	David Knudson		

To all of you who took the time to vote, many thanks.

The Limited Edition "Back To The Future II" Complete Collector's Kit...



Order Yours Fast!

The other day, a baseball card sold for $5,000, a cereal box for $11,000. Why? Because, few were printed and fewer yet exist today.

Through a lot of detective work, we were able to get a few of these complete souvenir movie kits. Will they be worth thousands one day? Could be.

In this kit, you will get all kinds of pens, pencils, silly straws, stickers, buttons, notepads, keychains and more. 17 pieces in all (Displays are not available).

Early, out-of-stock DeLorean-related memorabilia is already getting expensive and this winner won't last long so order today.

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CHANGE THE FACE on your DeLorean Speedometer (in good working condition) to 170 mph and recalibrate. $95.00 plus $4.50 shipping and handling. California residents add 6.75% sales tax. DELOREAN ONE, 9006 Owensmouth Ave., Canoga Park, CA 91304. Call one of our toll free Hotlines (800) DMC-HELP; (800) USA-DMC1 or California (818) 341-1796 or Texas (713) 568-9573.

FOR SALE – DeLorean. 1983. One of the last. Original owner. Always garaged. 18,000 miles. Cruise, oil cooler, heat shield, shop manual. Perfect in every way including mint black leather. Florida. (904) 439-3278. Work (904) 755-5770. Norman King.

FOR SALE – DeLorean. 1981. Automatic. VIN #5842. One owner, 29,000 miles. Garaged. Grey interior. Factory manual, $15,000. (718) 380-7138.

FOR SALE – DeLorean. 1981. Reluctant, but must part with DMC 12. Excellent condition. Garaged, complete with records and manuals. 24,000 miles. $18,000. (708) 441-7600.

COLLECTOR'S ITEM – Red (with silver DeLorean) long-sleeved Cape Cod DeLorean Expo '89 sweatshirt; washable. SM-XL $22.50; Long and XXL $24.50 plus tax and shipping. DeLorean Owners Association Products, 8900 Oak Park Avenue, Northridge, CA 91325.

SPEEDOMETER on your DeLorean not working? New angle drives available now! Only $93.89 each plus $3.00 shipping and handling. California residents add 6.75% sales tax. DELOREAN ONE, 9006 Owensmouth Ave., Canoga Park, CA 91304. Call one of our toll free Hotlines (800) DMC-HELP; (800) USA-DMC1 or California (818) 341-1796 or Texas (713) 568-9573.

FOR MEMBERS ONLY – DeLorean World back issues for $12.50 per issue plus tax and shipping. Send list of back issues you desire; be sure to include season and year, Vol. and No., to DeLorean Owners Association Products, 8900 Oak Park Avenue, Northridge, CA 91325.

I'LL BUY your old working DeLorean original equipment radio if you have replaced it with another. Pasqual Lombardi, 1175 Long Hill, Sterling, NJ 07980-1007. (201) 687-8180.

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GULLWING *(FROM PAGE 27)*

NY ASSOCIATE ENJOYS STAR CAR

BY ELIZABETH B. BURNS

One of the stars of Robert Zemeckis's film "Back to the Future" was the vintage DeLorean car that Dr. Emmett Brown, played by the incomparable Christopher Lloyd, converted into a time machine.

When the sequel to the movie, "Back to the Future, Part II" opened on Wednesday, November 22 at Manhattan's glitzy new Cineplex Odeon theatre, moviegoers enjoyed seeing one of the 8,000 DeLoreans actually manufactured between 1981 and 1983. The gull-winged wonder car was on display compliments of its owner, New York litigation associate Brian Graifman.

While about 5,000 stainless steel DeLoreans are in the U.S., only a handful are in Manhattan, and only Brian's has made it to a movie theatre lobby. Positive he wanted a DeLorean, Brian looked at five before purchasing the one he has. He liked the DeLorean because "it was a piece of art that transported." Brian actually drives his 1981 model, though he does not park it on the street.

Due to the DeLorean's width, a construction crew had to remove the frame of the entrance of the theatre to get the car in the lobby. Approximately 125,000 theatregoers viewed the car throughout the long Thanksgiving weekend.

The absence of his car did not affect Brian's Thanksgiving dinner. He spent the holiday with his cousins — and he got there by train.

Reprinted courtesy of Skadden, Arps, Slate, Meagher and Flom, December 1, 1989.

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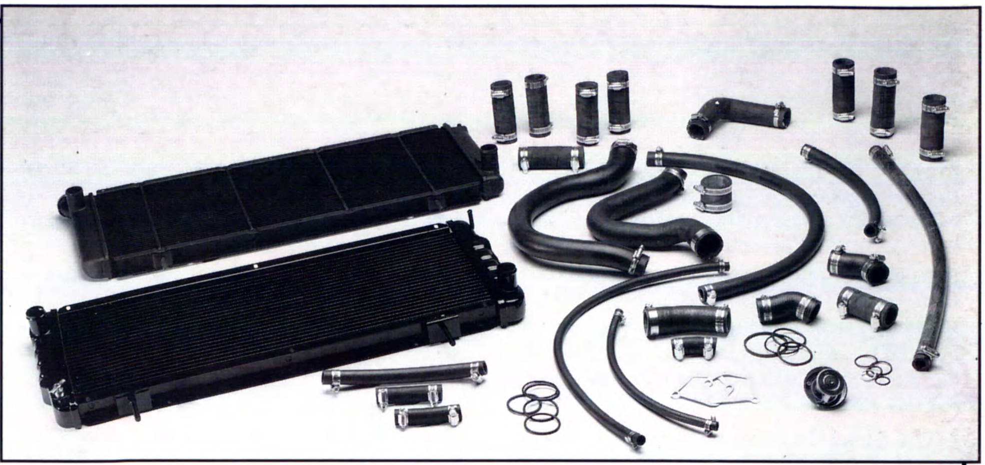

"Oh no! Not here!"

Scores of DeLorean owners will never forget the day their radiator burst or a water hose gave out.

It was the last thing they needed at the time. They were running late. They were miles from home and they were stranded.

They spent all kinds of money for towing and repairs and it was miserable, time-consuming hassle.

If you have a stock radiator, it has plastic end caps that dry out and break without warning. If you have factory installed hoses, their days are numbered, too.

As you know, DeLorean One has an ongoing R&D program that has produced many DeLorean improvements. Among them have been a heavy duty, all-metal radiator and new cooling system hoses that are manufactured from stronger, state-of-the-art materials.

If you haven't been stranded yet, get our new, heavy duty radiator and hose set now and replace your old equipment before that fateful day.

A little about us.

DeLorean One is the largest DeLorean inventory/service company in the world.

"Whoopee for us," you say.

Well, you're right. Big isn't everything. In fact, a lot of big companies are terrible. But not us. Our bigness means we'll always have the parts you need, and when they're not available any more, we'll have them made.

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D100171 –	INTAKE MANIFOLD "O" RING & GASKET KITS These parts must be replaced when you change the hoses or water pump	$37.93
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D610417 –	COMPLETE COOLING SYSTEM SETS Includes heavy duty all-metal radiator, 25 high test hoses, clamp set, thermostat, intake manifold "O" ring seals and gasket kit	$551.42

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If you're thinking turbo, think twin turbo.

The most efficient method of turbo charging your DeLorean's V-6 engine is with two turbochargers—one turbo unit for each three cylinders.

When the DeLorean factory began developing a performance model, the twin-turbo configuration was the system they preferred (see Road & Track, December, 1984-page 37). The Island Twin-Turbocharging System is the most faithful to that DeLorean factory turbo design.

QUALITY

- The Island Twin-Turbo System includes a matched pair of IHI Turbochargers, the same brand used on most Indianapolis 500 racers.
- All intake manifolding is made of cast aluminum, which can't rust or crack like metal tubing.
- A matched pair of exhaust manifolds are fabricated from rugged cast iron.

PERFORMANCE

- 0–60 mph .... 6.3 seconds
- Top Speed .... 140 mph
- Total exhaust breathing capacity is increased to a BIG 4-inches total diameter (2 inches for each bank).
- No turbo lag.

REPUTATION

- Island Turbo has been turbocharging DeLoreans since 1981 and has earned one of the most respected names in the turbo industry.

If you're thinking turbo, think twin-turbo. There's only one — Island Turbo, the DeLorean turbo experts.

California EPA Approval Pending

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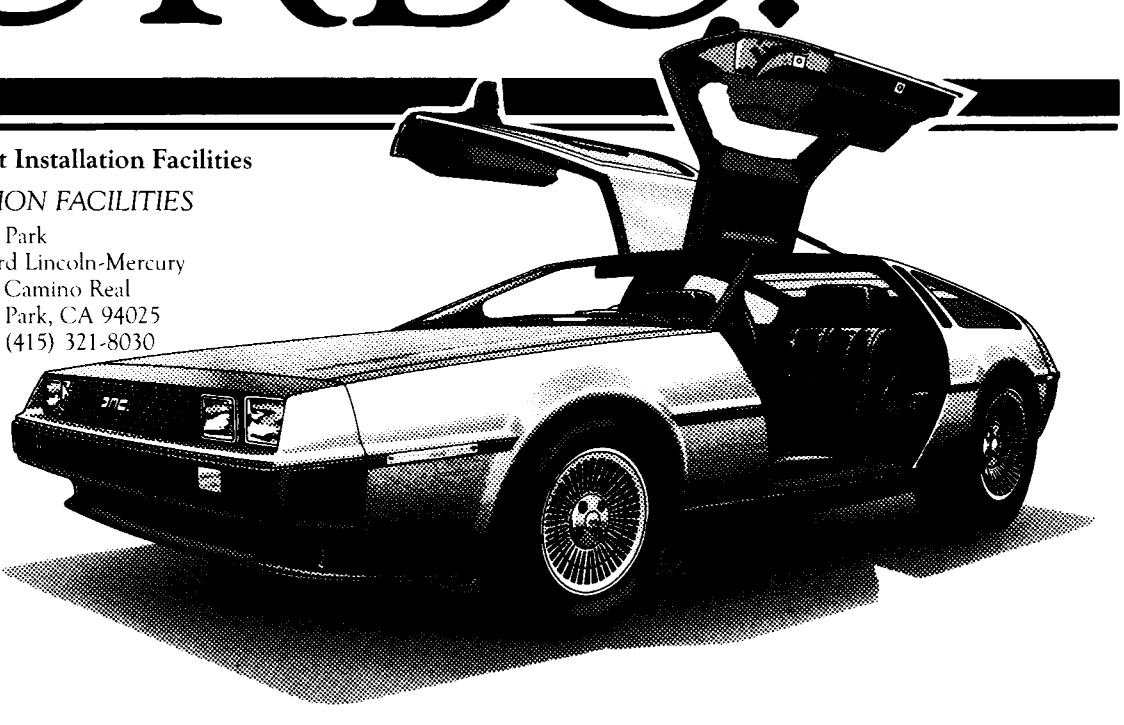

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